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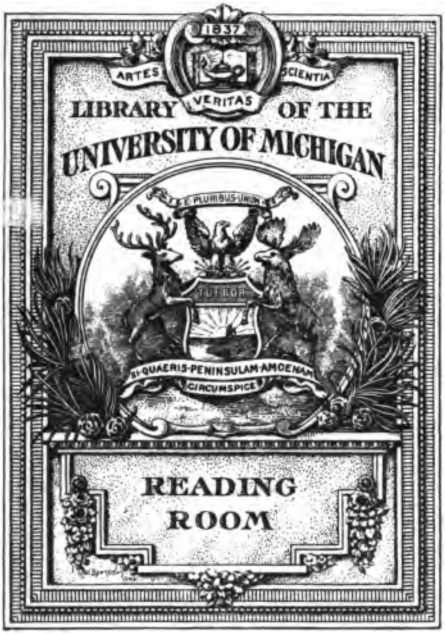

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THE ELEMENTS OF POLITICAL ECONOMY.

BY

FRANCIS WAYLAND, D.D.

LATE PRESIDENT OF BROWN UNIVERSITY.

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As an educator, no man in this country ever stood higher than Dr. Wayland. These books were built up from his work in the class-room, and are, therefore, adapted to meet the wants of both teacher and scholar. They are now used in most of the leading schools and colleges in the country.

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PREFACE.

DR. WAYLAND'S work on Political Economy was the first attempt in our country to present the principles of that science in the form of a text-book of instruction. His aim was to put into simple statement under a natural and methodical arrangement, the doctrines of Adam Smith, Say and Ricardo, who were in his day, as they still continue to be, leading authorities on the subject. To the public generally the whole subject was new. Dr. Wayland therefore used abundant illustration and frequent repetition in this introduction of the science to youth and practical business men. His effort was attended with remarkable success, and no other text-book on the subject has gained such general acceptance and been so extensively and continuously used.

But the forty years that have elapsed since Dr. Wayland finished his work, have been years of wonderful activity and enterprise in all departments of productive industry and trade. Many practical problems of Political Economy have thus come to be studied in a new light and have elicited discussions earnest and profound from philosophers, statesmen, and practical manufacturers and merchants. The science itself has made progress, and its elementary principles have become more or less familiar and are readily apprehended by all. Special treatises on Capital, Labor and Wages, Money and Currency, Taxation, Free Trade, etc., have thrown much light on the complicated problems which concern the development and distribution of wealth. While these things have caused little change in the real elements of the science as presented by our author, they demand that as a text-book of instruction adapted to our times, his work should be very considerably modified.

Some months ago, the present publishers of Dr. Wayland's book requested the writer to make a revision of that work. Fully believing that the doctrines and the general aim and methods of that eminent instructor on this subject were sound and wise, and that the pressing want of the class-room in our institutions of higher education, was not fully met by any one of the excellent treatises before the public, he consented and assumed the undertaking. It was soon found, however, that a mere *revision* of the book would not accomplish the desired object. Comparatively few pages of the original work could be used as they stood. In the result, while scarcely any change has been made in the opinions presented, the arrangement and the forms of statement have been quite generally *recast* with considerable condensation and many needed additions.

In the prosecution of his work, the writer has had chiefly in mind the wants of the class-room as suggested by an experience of many years in the instruction of successive classes in college. His aim has been to give in full and proportioned, yet clear and compact statement the *elements* of this important branch of science, in their latest aspects and applications. In thus recasting the treatise, he has followed his habit before his own classes, and drawn freely from various writers, sometimes in formal quotations, but oftener by catching apt thoughts and happy expressions as they might serve his purpose. The writings of McCulloch, Mill, Fawcett, Thornton, Jevons, and Brassey, of England, and those of Bowen, Perry, Carey, Thompson, A. Walker, F. A. Walker, Sumner, and D. A. Wells, of our own country, have been thus freely referred to and drawn upon.

The work in its present form is offered to the public, not as an original contribution to the science treated of, but as a compilation of well defined principles of the science, which, in the writer's view, are to be accepted as sound and true. On some disputed topics, positive opinions are expressed, with due respect for the sincerity of those who may think differently, but in the strong conviction that they will stand the test both of philosophy and of practical experience.

A. L. C.

BELOIT COLLEGE, *March* 1, 1878.

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POLITICAL ECONOMY.

CHAPTER I.

PRELIMINARY OBSERVATIONS.

Origin of the Name. — Mankind are constituted mutually dependent and coöperative., Hence by necessity, they live in *Society* and the highest good of the individual is identified with a common good. The first and simplest form of society is the *Family,* living under a common house-roof. Thus, very naturally, the Greeks, whose inquisitive minds pried into the philosophy of all things, grouped the elementary principles of men's social life under the term ʽοικονομια,—*economy, the law of the house.* They used the term with reference mainly to a thrifty provision of comforts for the well-being of the members of the household.

As individuals make up families, so families make up cities and states. The elementary principles of the broader association are essentially the same with those of the primary societies. Hence the term **Political Economy**, applied to the community, in a body politic, as *domestic economy* is to the household. Aristotle first used the term with a signification vague and general. It has come now to have a technical meaning. Usage has recognized its intrinsic fitness to indicate that department of truth which is concerned with the well-being of men in society as affected by wealth. It is not likely to give place to any substitute. The adjective "*Political*" means simply pertaining to the city or state. It implies nothing of *politics* in the ordinary sense of that word.

Its Definition.—*Political Economy is that branch of Social Science which treats of the production and application of wealth to the well-being of men in society.* It is a branch of true *science.*

By Science, as the word is here used, we mean *a Systematic arrangement of the laws which God has established, so far as they have been discovered, of any department of human knowledge.* It is obvious, upon the slightest reflection, that the Creator has subjected the accumulation of the blessings of this life to some determinate laws. Every one, for instance, knows that no man can grow rich, without industry and frugality. **Political Economy,** therefore, is a systematic arrangement of the laws by which, under our present constitution, the relations of man, whether individual or social, to the objects of his desire, are governed. Man's hand joins with the hand of fellow-man and with the powers of nature to produce wealth. Hence the processes and the legitimate end of the science imply a combination of the laws of the material world with the laws of man's social nature.

Fundamental Laws.—The science is based on four fundamental laws.

1. God has made man *a creature of desires* and constituted the material world in which he lives with qualities and powers available for the *gratification of those desires.* As men advance in individual and social development, their desires are multiplied. At the same time by their increased intelligence and ingenuity, the resources of nature are unfolded in full proportion. Desire stimu-

lates invention and successful invention wakes new desires. *There is no assignable limit to the development of either men's desires or nature's resources.*

2. For desires above the very simplest wants of the animal, *man must, by Labor, force nature to yield her hidden resources.* Things most essential to mere animal life are furnished by nature in available form, demanding, on the part of men, only such exertion as is necessary to take and use them. We can hardly avoid the light, or refrain from breathing the air. Water bubbles up from the ground to quench thirst, and the spontaneous vegetation of the earth offers something already prepared for food. But for those desires which unfold with the exercise of our rational faculties, from anticipations of the future, from the conception of possible enjoyments, from the choice of a free-will making selection according to taste, from the love of admiration, from the love of power, from the spirit of benevolence—for these, nature hides the means of gratification and yields them only to the toil of contriving mind and muscular force. *The conveniences and comforts of civilized life are the fruits of human Labor.*

3. *The exertion of labor establishes a right of* **Property** *in the fruits of labor,* and the idea of *exclusive possession* is a necessary consequence. Personal rights begin with the consciousness of individual being and of individual achievement; and the idea of labor expended in the production underlies directly or indirectly the property-right to anything. Originally the thing produced belongs to him who produced it by an intuitive conception of right, and the act of appropriation is as instinctive as the act of breathing.

4. *With the right of property, comes also the possibility and the right of* **Exchange**, or the mutual transfer of possessions between man and man, and between different communities and countries. One may do what he will with his own. The transfer in good faith and perpetuity of an

object gained by labor constitutes a title to possession as well grounded as that which rests immediately on labor performed. We are brought thus into the sphere of man's social life with its manifold and complicated relations, from which proceed the most powerful incitements to stimulate desire, to nerve up labor, to maintain rights and to multiply and distribute the innumerable elements of wealth.

Materials of the Science.—The materials of this branch of science lie fixed in the nature of man, and of the physical world which he controls, and in the structure of human society. They are drawn out by *the study of men's wants, the investigation of nature's resources, the study of statistics of human invention and industry, and the defining of principles for common and reciprocal agencies in social relations.* This science combines elements of both *physical* and *metaphysical* philosophy. It differs from the purely physical sciences in that the phenomena of *human volition* are continually involved in the system. It differs from the branches of intellectual and moral science in that it contemplates all soul-phenomena with reference mainly to certain physical results. Its leading propositions must often express *tendencies* rather than actual facts. Its conclusions must rest often on the *balance of probabilities,* rather than on pure and perfect demonstrations.

The Motive to Effort.—Political Economy regards *self-interest* as a universal motive of human action, and it studies the mutual relations and intercourse of men as governed by that motive. It assumes that *labor is irksome,* and that every body desires the utmost possible gratification with the least possible exertion. Its great problem is to find a common interest which, as the resultant of individual self-interest, properly combines and regulates the separate forces. Its principles point to *the golden rule of*

Christ as the formula by which the problem must be finally solved.

Conflicting Desires.—Three desires inherent in every man contend for the mastery.

1. *Desire of Ease.*
2. *Desire of Present Gratification.*
3. *Desire of Means to ensure Future Gratification.*

The resultant of these conflicting desires measures for any one his interest in the accumulation of wealth. The degree in which the other two are held subordinate to the *third* determines the productive activity of a community.

CHAPTER II.

DEFINITIONS AND DIVISIONS.

Wealth.—This is the central term in Political Economy. The word is commonly used loosely and vaguely. A clear and strict definition of it is essential to a right understanding of this science.

The generic term Wealth embraces all useful things which can be appropriated and exchanged. This definition combines two qualities, first, *Utility* or fitness to gratify desire; second, *Appropriability,* or fitness to be seized and held in exclusive possession. Whatever has both these qualities in any degree, is a part of wealth. Whatever lacks either is excluded from wealth. Perhaps we cannot say of anything that it has absolutely no utility, for God has made nothing in vain. But in their place, relatively to gratifying any desire of man, the sand on the sea shore, the crags of the mountain-top, the debris of a demolished building are without utility. No accumulation of such things can become *wealth.* On the other hand, such things as the air and the sunlight have the very highest utility, insomuch that they are essential to the very life of every man, but their universal diffusion precludes their being appropriated as the exclusive possession of any. Therefore they form no part of wealth.

Errors respecting Wealth.—1. It is an error to identify wealth with *money.* Money, though it measures all things, and is a medium of exchange for all, itself forms but a small part of the sum of wealth. It is desirable not for its own sake but for the wealth in other forms which it can purchase. The so-called "Mercantile System" which long ruled the policy of nations with mischievous effects, rested upon this radical error. Its doctrine was that whatever tends to heap up money or bullion in a country adds to its wealth, and whatever sends the precious metals out of a country impoverishes it. Hence commerce was conducted with a sole view to bringing gold and silver into a country. That system is now exploded, but the false idea still lingers in many minds to confuse and complicate problems of both private and public finance.

2. It is an error to class as wealth *human beings* or their *native capacities* or *acquired abilities.* Physical strength, intellectual genius, moral character, professional skill are possessions of highest worth. But they are an inseparable part of one's own being. They cannot be directly transferred from one to another. They are *powers* for the production of wealth, but only the *products* which come from their exercise can be counted into the sum of wealth.

3. It is an error to regard *mortgages, bonds, stocks and the like* as a part of general wealth. These things only indicate a title to possession, a mode in which some real wealth is distributed. The mortgage which one holds simply divides the farm on which it rests between the nominal owner and his neighbor. The wealth is in the farm. It is not increased a whit by the mortgage itself. A bond of the United States for one thousand dollars, only gives its holder a lien on the solid wealth of the country for that amount, to be drawn some day from the tax-payers. A. B.'s certificate for fifty shares of stock in a railroad, means that he is the owner of that proportion of the land, the rails, the engines, the cars and whatever else constitutes the property of that corporation. Its division into one hundred thousand shares distributed to one thousand dif-

ferent persons makes no more of that wealth than if a Vanderbilt owned it all. In the estimate of one's individual property, he may count in all that he owns of this kind. The fact to be noted is that these do not add to the sum of general wealth, but only show how some portion of wealth is distributed. They are *Symbols* not *Substance.* Many a mischievous illusion comes from mistaken views of these things.

4. It is an error *to exclude from the category of wealth everything which is not tangible and durable.* The song of a Jenny Lind and the eloquence of a Wendell Philips impart a high gratification which can be appropriated by those who gain admittance to the hall where they are produced. The song is produced by labor applied to the air, which develops hidden properties of sound, viz., tone, melody, rhythm, which meet a human desire. What more can be said of a coat made by a tailor? The two products differ only in that the coat gives a moderate pleasure, prolonged for months, and may be laid up in store; while the song gives a keen, it may be ecstatic enjoyment for an hour, only the cherished memory of which can be retained. It is wealth, impalpable, evanescent, consumed as soon as produced. It meets our definition, though it cannot be stored or counted.

Sources of Wealth.—The *original* source of wealth is *the bounty of God in nature.* Man can neither create a particle of matter nor impart to it any new property. He can only develop and modify what God has made, which is free to all, restricted only when actually appropriated by labor. Over the whole material creation, he is set in full authority to search, to subdue, to control and to use.

The *secondary* source of wealth is *human labor exerted to bring forth the bounty of nature in form, in time, in place, suited to meet the desires of men.* This gives the right of possession which controls both the gift of nature and the added utility imparted by labor.

How Wealth is increased.—Wealth in every form must be perpetually *renewed.* It is maintained only by *a constant process of reproduction, i. e.*, of consumption for reproduction. It grows only as that which is produced exceeds that which is consumed in capacity to gratify desire. Mill says, "The greater part of England's wealth to-day was produced within the last twelve-month." To accumulate wealth, labor must go beyond what is essential to meet immediate necessities; and the check of *forethought* and *abstinence* must be laid on the immediate consumption of the products of labor. Hence *industry* and *frugality are indispensable conditions of the increase of wealth.* These are characteristics which distinguish civilized from savage men, and thus wealth becomes a sign of *Civilization.*

Value.—In ordinary usage, this word often expresses only a vague idea that the thing to which it is applied is desirable. But as a technical term in Political Economy, it holds a place of highest importance. Ambiguity in its use causes much confusion of ideas on economical problems. Hence the necessity of a strict definition to be strictly adhered to. Formerly a distinction was made between *Intrinsic Value* and *Exchangeable Value.* But all that was meant by intrinsic value is better expressed by the word *Utility,* and this is now quite generally adopted in its place, leaving *value* with one distinct signification which may be stated thus.

Value is Purchasing Power, or that quality in an object which gives it *power to command other objects in exchange.* It supposes always a comparison of two objects in view of an exchange, actual or contemplated. It is not like weight, an absolute, inherent quality of a substance. It cannot be discovered by examining an article by itself. Value is always a *relative term.* The measure of it pertaining to anything can be expressed only by naming some other thing for which it can be exchanged—the *quid pro quo.* Thus the value of a hat may be set down at four bushels of wheat or a quarter of an ounce of gold, because it will command so much of one or the other in exchange.

Value in Distinction from Price. Value is the power to command commodities generally. Price is that power with reference to a single article, viz., *Money.* Money is the general *standard of value,* and so value may be indicated by a comparison of prices, but it is important to observe the distinction between the two terms. The value of a specific commodity may rise or fall. Thus the hat which brought four bushels of wheat last year, may bring but three this year. To discover which of the two has changed in value, the cause affecting one or the other must be inquired into. It may be that a failure of crops has enhanced the value of wheat, or that some new invention, cheapening the process of manufacturing, has lessened the value of the hat. But *there can be no general rise or fall of all values.* There may be however, a general rise or fall of *prices* in consequence of some cause, like an expansion or contraction of paper currency, which affects money, the one object with which all things are compared.

Value in Distinction from Utility.—Utility is simply *adaptedness to satisfy a want, or to gratify a desire.* Things that have value, have always utility in this sense of capacity to gratify desire, without reference to the quality of the desire as right or wrong, wise or foolish. The power of a commodity in exchange is measured by its desirableness. But some things of the very highest *utility* have no *value,* as for instance air, light, water. We cannot live without them, yet they have no value, no purchasing power, because the supply is so large and so free that whoever will may take to his satisfaction without labor. They *cost* nothing, and they cannot ordinarily be appropriated in exclusive possession.

The Limits of Value.—With these distinctions in mind, it is plain that value may be resolved into two elements, viz.

1. *Utility* = desirableness for gratification.
2. *Cost* = difficulty of attainment, measured by the amount of labor necessary to secure the object.

By these two elements the limits of value are defined. The *Maximum limit* of value in any commodity is defined by its *Utility.* That is, its purchasing power is determined by the intensity of desire for its possession by the parties to the exchange. This will depend on a variety of circumstances, such as the taste of individuals, the fashion of the day, the emergency of the hour, etc. The value may and often does fall short of this, but can never go beyond it. We seldom give for a loaf of bread an equivalent which expresses the measure of its utility to support life. But under the pressure of famine its value is crowded up close to this limit. When a man offers ten thousand bushels of wheat for a choice diamond, he expresses only the intensity of his desire for the glittering gem.

The *Minimum Limit of Value* in any article, for any long time, is defined by its *Cost,* that is, the exponent of the labor either actually expended in its production, or which must be expended for its reproduction. When the market value of a commodity falls permanently below its cost, its production is suspended. If however, there is good reason to believe that its value will rise again, it may be good economy to tide over the temporary depression by exchanging at a rate less than cost. A diamond of great beauty may become the property of one, at the cost only of the labor of picking up what, by good luck, he chanced to find. Its value is however, estimated by the probable labor involved in a continuou[illegible]rch to obtain its equal. In the last analysis, the comparison is of labor with labor, and it is true as has been said, that "*service for service* rather than commodity for commodity is the rule of value and the law of exchange."

The Law of Supply and Demand.—Between these extreme limits of value, there is room for a considerable variation which is determined by the *law of Supply and Demand.* Concisely stated, this law is that, with cost as its stable foundation, *value increases directly as the demand and inversely as the supply.* The degree of variation thus caused depends on several circumstances. The *necessaries of life* are more affected than luxuries, by diminished supply. Excessive supply reduces the value of *perishable* articles such as fruits and fish, far more than that of enduring articles like iron and cloth. Commodities that *can be quickly produced* to meet a special demand will fluctuate but slightly in value. The *freaks of fashion* subject *fancy goods* to far greater variation than staple goods. Reduced value extends demand, and enhanced value restricts demand quite beyond the mere ratio of the change. Thus a thousand persons will use cotton cloth at ten cents a yard, where a hundred would use it at fifty cents.

Monopolies artificially limit supply for the purpose of increasing value. Thus it is said that at one time the Dutch, who had a monopoly of the trade in pepper, actually destroyed part of an extraordinary crop, rather than permit the market-value to be reduced. When left free from artificial interference, demand and supply rush towards an *equilibrium;* and the condition of stable equilibrium is that things exchange for each other according to the cost of production, or as some express it, according to their *natural value.*

The Practical En[illegible]ntemplated in Political Economy is the *Production* of [illegible]lth, in the *largest measure* and of the *highest value,* and its application to the fullest and most general *Satisfaction* of men's desires.

DIVISIONS.—Logically, the science resolves itself into two leading and two subordinate divisions. The two leading divisions are PRODUCTION and CONSUMPTION.

Production is the act by which we confer a particular value upon any object, or by which we give to an object its adaptedness to gratify desire. We can neither create nor annihilate any thing. All that we can do, is, to modify what already exists. When we so modify any thing that it is capable of gratifying a desire which before, it was not capable of gratifying, our so doing is called *production.* Under this division are presented the process and laws which relate to the development of wealth by the creation of Value.

Consumption is the act of *destroying* wealth in its use for the gratification of desire. The destruction of wealth in one form, for the sake of bringing out wealth in another form of greater utility and higher value, belongs to the department of Production. The destruction of wealth without yielding either gratification or increased value, as when goods are swept away by flood or consumed by fire, is of itself, only a calamitous interference with the laws of our science. Under this second division we study only *the laws which govern the economical use of wealth to meet wants and impart gratifications.*

All production is for consumption. Yet consumption is antagonistical to production, as it uses up the means of production. Yet, again, a sound and healthy consumption is a stimulus to production; and conversely, profitable production increases consumption as it multiplies and cheapens the means of gratification.

Between these two leading divisions come in the two subordinate divisions, DISTRIBUTION and EXCHANGE.

Distribution.—The productive effect of human activity is greatly increased by union of effort and division of labor. When the product is realized and the results are to be divided, some equitable law is to be adopted in the distribution. Under *Distribution* therefore, are embraced the processes and laws which relate to *the division of the results among the parties who unite in producing values.*

Exchange.—The mode of every man's industry is decided by his individual tastes, capacities and circumstances. It is commonly, however, confined to the creation of one kind of product, inasmuch as it is thus vastly more available. His desires, on the other hand, are as innumerable as the objects created to gratify them. He creates but one value and he wants a thousand. Hence, he can be gratified by means of no less than nine hundred and ninety-nine exchanges. He thus parts with various portions of the value which he has created, for the sake of obtaining values which others have created. Hence the necessity of universal and ceaseless *exchange.* Under *Exchange* are brought to view *the processes and laws which relate to the mutual transfer of values.*

The channels through which Production, the means, carries its results on to Consumption, the end, run through the domains of Distribution and Exchange. The processes and laws of Production and Consumption are simple and easily apprehended. The difficult problems of Political Economy pertain almost entirely to the matters of Distribution and Exchange.

These four divisions will be treated of in the order in which they have been here presented.

CHAPTER III.

FIRST DIVISION.—PRODUCTION.

It is obvious that when man was first created, there existed nothing but this earth, with its various substances, their qualities and relations; and man, with his various physical, intellectual, and moral powers. The difference between the *present state* of man and of the universe around him, and the *original state,* consists in this: that the qualities and relations of things have now been discovered, and rendered available for the service of man; and the intellect of man has been cultivated, and his skill improved, so that he is able, more successfully, to avail himself of these qualities and relations. And it is also obvious, that this change in the external world has been produced by the physical and intellectual faculties of man; that is, by human industry. The whole wealth of the world has been created by the union of human industry with the materials which God had originally spread around us. In simplest statement, we say then,

Wealth is produced by the application of labor to natural objects.

(*a*) *Some labor* is necessary to *find and appropriate* most of those objects which nature brings forth spontaneously in a form to gratify desire.

(*b*) In most cases further labor is requisite to bring natural objects into *a condition fit for use.* Fig leaves must be sewed together. Game and fish must be divided, cleansed and cooked. Wheat must be ground, and the flour kneaded and baked, and so on up to the transformation of sand and sea-weed,—silex and alkali, into glass.

(*c*) But most especially for the advanced processes of production essential to meet the wants of civilized society, *some accumulation of the products of former labor is requisite to begin with.* Materials must be gathered, instruments must be prepared and provision must be made for the subsistence of the laborer during the process of production. To these products of former labor, as concerned in production, the name **Capital** is applied.

The **Production** of wealth thus involves the combination of Labor with Capital, and this branch of the subject may be best studied under the threefold sub-division **Labor**—**Capital**—and the **Co-operation** of these two forces.

CHAPTER IV.

LABOR.

Definition.—*Labor is the voluntary exertion of human beings put forth to attain some desired object.*

We say "*human beings,*" for the toil of beasts is but the agency of an instrument, reckoned a part of capital. We say "*voluntary*" exertion, for, in the view of Political Economy, the involuntary work of slaves is like the toil of oxen, the mere use of a thing owned as a part of one's capital. We say also "*for a desired object,*" for this distinguishes labor from *play.* In play, we are satisfied with the mere exercise of our faculties. In labor, we seek a further end—a result which comes as an abiding reward for the effort. The exertion put forth in play is often more severe than that of labor, as we see on the ball-ground or in the rowing match; but the distinction is always clear. The game of a *hired* base-ball club is never, in any proper sense, play.

Labor a Measure of Value.—Labor is always *irksome,* put forth only for the sake of the object to be attained In any case, therefore, when desire is awakened for a certain object, the question arises, Is the gratification *worth* the labor necessary to secure it? When the desire is strong enough to overcome the man's inertia, or love of ease, he will put forth the necessary labor and that labor stands ever, an exponent of his estimate of the object. He will part with that object only for something else which has cost at least an equal amount of labor. Every man estimates the products of his labor by the same rule. Thus, in all exchanges, for the comparison of value or purchasing power, the first question is, how much labor is involved—what is the *cost* of the objects offered for exchange ? Labor thus becomes not the sole element, but always a fundamental and essential element in the measure of value.

Kinds of Labor.—The processes of production give scope for the exercise of all the faculties of man. So, resolving the compound of human nature into its two constituents, body and mind, we recognize two kinds of labor.

1. *Physical labor* in which muscular exertion is the chief thing.

2. *Mental labor* which engages chiefly the faculties of the mind.

We say "*chief*" and "*chiefly*," because in reality all human industry combines some physical and some mental effort—taxes both muscles and brain. The dullest laborer must give some thought to the movement of his hands ; and the profoundest thinker must task some of his muscles in the labor of writing or dictation to bring before the world the products of his brain-work. In general, manual labor is profitable in proportion as mental effort in the way of skill or contrivance, is blended with it. And minds tasked in study to unfold the secret constitution of nature, continually open the way for new industries, and indicate new methods for the multiplication of wealth. These two kinds of labor are very closely joined in the active industry of the world. Yet the distinction is obvious and important. To bring it out more fully, we need carefully to consider :

I. What Physical Labor does.—All the power there is in these bodies of flesh, comes from the capacity of living muscle to contract and expand. It is simply *power to produce motion.* The muscles are strung with nerves through which the will directs their motions. All that man does or can do with matter is by working his muscles, to bring a pressure to bear on objects to set them in motion, or to check or modify, or altogether arrest their motion, so as to effect a desired result. Physical labor only moves things. But the power to do this gives man a command, reaching beyond any definable limit, over the forces of nature which are the effective agents of production. Man drops a seed into the ground. Then the vital force hidden in the seed, quickened by moisture and heat and nourished by chemical elements in the soil, brings forth successively, root and blade and leaf and flower and fruit. Man brings coal to the furnace and applies to it a spark of fire. Then a hidden force of nature in the process of combustion turns the carbon into heat. Man may lay on the pile, ore dug from the earth, but it is nature's force, which by the action of heat makes the iron flow. Man's muscles lift the hammer, but nature's forces, gravitation and density on the one hand, and tenacity and malleability on the other make the blow effective to shape the iron. Thus, through all the processes of production, man moves things into such relations that the forces of nature can act to achieve the results he aims at. He can do nothing alone. Ordinarily, nature will do but little to his purpose without his effort to move things into some sort of adjustment to her laws. We are brought thus to consider next:

2. **What Mental Labor does directly** for the production of wealth. For the wisest and most effective application of physical labor touching material objects just to move them, men must know as much as possible of the properties of matter and of the forces of nature by which those properties can be developed and modified. Such knowledge comes through labor of the mind, searching out

the constitution and the laws of matter. After this knowledge is gained, human minds must be further tasked to devise means and instruments for applying it in efforts for the increase of wealth. Still further, when the elements and laws of nature are understood, and instruments are made and adjusted to them, the mind must be exercised in close attention to superintend the operations, so as to hold all instruments and their movements true to the principles of their construction, and to the end aimed at. By habitual exercise, one acquires quickness of perception, and readiness and precision in manipulation, that is *skill*, which is, in essence, a power of mind more than of muscle. We define then three distinct forms in which mental labor is concerned in the production of wealth.

1. *The labor of Investigation and Discovery*, through which the properties and laws of nature are made known. Newton labored in this department, when he discovered the laws of gravitation, of optics, and of the motions of the heavenly bodies; Franklin, when he discovered the laws of electricity; and Sir Humphrey Davy, when he discovered the alkaline bases, and the laws of their combination. The labor of each of these men was also of the same kind, when they made known these laws to the public. The labor of students of science in all departments, belongs to this category.

2. *The labor of Invention*, employed in devising *instruments* of production adjusted to the discovered principles and properties of nature. Newton performed this labor when he invented the telescope(?) Hadley when by means of the quadrant, he applied the laws of light to the measurement of angles; Watt when he devised an engine to control and utilize the expansive force of steam; Arkwright when he invented the spinning-jenny; Morse when, by contriving the telegraphic register, he bound electricity to do man's bidding, and Daguerre when he found a way to

apply the actinic properties of light, and set the sun himself to making pictures for us. The mathematician in his study, puzzling his brain with problems of number and quantity, lines and angles, seems far removed from the practical work of life. Yet the fruit of his labor enters into all effective machinery, in a way to multiply comforts for men, beyond all computation.

3. *The labor of skillful Oversight and Superintendence.* In its lowest form, this is joined immediately with the muscular action of physical labor, as in the case of the mechanic using simple tools to work wood or metal, according to its nature, for a definite purpose. In higher forms it watches and guides the running of a complicated engine, or presides over a department of labor to combine the products of many working hands and minds, or manages the business of a great manufactory, the observing eye and governing will by which manifold processes are made to coalesce for the one end of producing things that will gratify men's desires. Through the whole range, *intelligence and judgment* are exercised to regulate the motions of physical labor, by means of inventions, and according to discoveries previously made.

These three forms of mental labor continually run into each other, as Sir Humphrey Davy discovered the nature of choke-damp in mines, and invented the safety-lamp, or as Sir Richard Arkwright, a thoughtful spinner, invented the spinning machinery now in common use. It is obvious therefore, that the wide diffusion of knowledge, and the culture of habits of close observation, tends directly to increase the effectiveness of labor. In the actual progress of industry, the order of these forms of labor is commonly reversed. Men begin with simple muscular efforts. Thinking mind attending these efforts, invents means of easing labor or of increasing its effectiveness. The effort of invention leads to the discovery of properties and laws which, in turn, wakens new interest and leads to new inventions. The spring of advancing civilization is thus *the activity of the human mind* directed to the production of wealth.

Labor indirectly instrumental in Production.—Under this head, we refer to that labor, chiefly *mental*, which has to do, not with the immediate production of material objects, but with *the general conditions* most favorable to successful industry of whatever kind. Health, intelligence, cheerfulness, integrity, social order, security to property, good government, refined manners, high-toned moral and religious sentiments—all these are conditions on which depend, in no small degree, the results of labor for the actual production of wealth. This labor is applied immediately *to human beings*, to rear them so as to keep up the supply of laborers, and to give them physical vigor and spiritual capacity and energy; and also *to human society*, to maintain order and security, and a tone of sentiment most favorable to cheerful toil and to good-will and happiness in all the associations of life. To this class of labor are referred the *mother's* unwearying care and effort in *nursing and training children*, the services of the *physician*, who studies and applies to individuals and to communities the laws of *health*, and the labors of the *teacher*, which develop the *mental powers* of the young and diffuse in a community *intelligence* which quickens and guides all industry. Here too, belong the busy brain-work of the *lawyer*, who labors to define and maintain rights and obligations as they spring up in the intercourse of men with one another, under the rule of civil law; and that of the *minister of religion* who plies the truths and precepts of "the higher law" of God, to form good consciences and improve the public moral sense; and that also of *legislators and officers of government*, on whose ordinances and administration of affairs, the stability of the whole structure of society depends. It is quite obvious that all these labors, though they do not directly bring forth material products, nevertheless enter into the general productive industry of a people, and are as essential to the best results of its processes as the manual labor of the farmer or the blacksmith. The support and the rewards of this kind of labor must come from the wealth produced. And it is wise economy to make ample provision for these services to be rendered by persons who make them their study and profession.

Labor as Productive and Unproductive.—Many writers on political economy make much of this distinction. Mr. Mill understands by "productive labor, only those kinds of exertion which produce utilities embodied in material objects," and by unproductive labor, that "which does not terminate in the creation of material wealth." We are however disposed to discard this distinction and to substitute for it that of labor as *directly* or *indirectly* concerned in production, according to the views just presented. In his own presentation of the matter, Mill's definition breaks down when he tries to include in productive labor, the labor of officers of government, recognizing it to be "indispensable to the prosperity of industry." The same thing certainly must be said of all that has been referred to as "labor indirectly instrumental in production." Whatever efforts tend to improve the condition of men for the work they undertake, or to improve the condition of society for securing to men the reward of their toil and the healthful enjoyment of life ought to be reckoned as *Productive Labor.* Then for the other side of the distinction, we may recognize in every community a class of *non-producers*—persons who do nothing directly or indirectly to increase wealth or promote the welfare of mankind, who are at best only consumers of the products of other men's labors. We have to recognize also a class of *Destructives,* persons whose energies are put forth to hinder all productive industry and destroy its fruits. Here must be included those who pander to the vices that unfit men for effective labor, those who as thieves, burglars, counterfeiters and swindlers, task muscles and brains, by force or knavery to rob their fellow-men, and the whole race of gamblers and speculators, whether their operations be carried on at the faro-table, or the pool-room, or the board of trade, or the stock-exchange. This whole class not only add nothing to the sum of wealth produced, but positively reduce it, by unfitting men for useful service and by unsettling the basis of industry, making its results uncertain.

Changes effected by Labor.—We have seen that wealth is produced by the application of labor to existing natural objects. No human effort can create a particle of matter. All that it can do is to effect changes in the matter to which it is applied. For the production of wealth, labor is directed *to develop the utilities* which are embodied in the constitution of material things so that they can be available for the gratification of desire. We have already shown that strictly speaking, labor can do no more than *to move things.* But through the exertion of his mental faculties in discovery and invention man gains control of the forces of nature, by or in accordance with which, most of the desired changes are wrought. Here, we may in a general way speak of labor as working by and with the forces of nature *to multiply useful things which can be appropriated and exchanged, that is wealth.*

Now, the changes which may be produced in the objects of nature may all be reduced to three, and concisely stated in the alliteration of three significant words, viz. **Transmutation — Transformation — Transportation.**

1. **Transmutation.**—Man may change *the elementary form* of matter. The farmer by means of seed, manure

and cultivation, aided by the agencies of the sun and the earth, of rain, and the atmosphere, transforms the elementary forms of carbon, gases, and water, into wheat. The chemist changes the elementary forms of acids and alkalies into salts. The dyer changes the elementary forms of iron and tannin into coloring matter ; and the case is the same with various other forms of human occupation.

2. **Transformation.**—Man may change the *aggregate form* of matter. The cabinet-maker changes the form of a board into that of a desk or a table ; the smith, a piece of iron into a horse-shoe or a nail ; the mason changes a pile of bricks and mortar into a wall ; the cotton spinner, a bale of cotton into thread ; the weaver, this thread into cloth. And, in general, the labor of *mechanics* and *manufacturers* is employed in effecting changes in the *aggregate* forms of matter.

3. **Transportation.**—Man may change *the place* of matter. Thus, the shipmaster transports a cargo of cotton from New York to Liverpool, and brings back a cargo of cotton goods, of crockery, or of hardware. The teamster receives a wagon load of merchandise in one town and transports it to another. The owner of a canal boat receives manufactured goods in Albany, transports them to Buffalo, and brings back to Albany, in return, a freight of agricultural produce. The agent of a railroad receives a hundred boxes of merchandise in Manchester, and transports them to Liverpool. And thus, also, a large number of the inhabitants of every populous town derive their subsistence, and frequently grow rich, simply by transporting wares and merchandise from one part of the town to another.

These divisions, in general, correspond with the *agricultural, mechanical,* and *commercial* departments of human industry. We have adopted a different terminology, because it seems to form a more generic and better limited division, and one more conformable to the facts in the case.

1. Concerning these divisions, it is proper to remark, that, though these are the various objects of human industry, yet it frequently happens that, he who labors in one, is also obliged to labor in one or both of the others. Thus, the farmer who raises a crop, is obliged to *transport* the seed to the field, and frequently to transport his harvest to market. The cabinet-maker who *manufactures* a table, may *transport* his materials from the lumber yard. The engineer, on the railroad, is obliged to change the *elementary* form of wood, in order to produce the caloric, necessary to move his locomotive. We designate the class of laborers to which a man belongs, by the ultimate object which he has in view in exercising his profession.

2. Each one of these forms of industry is *equally important* in developing the utility of substances, that is, in giving them capacity to gratify human desire. Thus we see that the ore in the mine has no power to gratify desire, until it is made into iron or steel. The steel is worthless for the purpose of cutting, until it is transformed into a knife, an axe, or some cutting instrument; and, if I want to make a pen in New York, a knife is utterly useless to me for this purpose, while it remains in Sheffield or Liverpool. Unless these several utilities are all conferred upon it, it would be of no service to me. Hence, in purchasing a knife, I pay for them all, and as willingly for one as the other.

3. Hence we see how *incorrect* is the notion sometimes advanced, that *all wealth is the production of one or of two*, and not of all these forms of human industry. All these changes must be effected in almost every article which we consume, and if either of them were to be suspended, our desires would not be gratified, and the other two must also be discontinued. He who transports flour, performs an

act of as essential importance to the sustentation of the human race, as he who raises wheat. He who brings a knife from Liverpool to me, performs a labor as important to me, as he who manufactures the knife; for, if it were three thousand miles off, it might, for all the purposes for which I want it, as well not be in existence. And yet more, if one of these forms of labor should cease, the others must soon cease with it. Of what use would wheat or wool be to the farmer, if they could not be transported from his farm? And again: what gain could be derived from either, if there were no means of grinding the one, or of manufacturing the other? Hence we see that *all the forms of industry mutually support, and are supported by, each other;* and hence, also, we see that any jealousy between different classes of producers, or any desire on the one part, to obtain special advantages over the other, are unwise, and, in the end, self-destructive. The fact is, that if left to themselves, they all flourish, and they all suffer together. Nor can either one be depressed, for any considerable period, without injuriously affecting both the others.

These various forms of human labor enter, in *different degrees,* into the value of different articles of use. For instance, butchers' meat and green vegetables derive almost their whole value from *the first kind of labor,* as they require very little modification, and will bear but short transportation. On the contrary, salted provisions may derive a large portion of their value from *change of place.* Clothing, cutlery, and what are commonly denominated manufactures, derive the greater portion of their value from change in the *aggregate form.* The original material constitutes, in general, but a small part of their price, and, not being of great bulk, their transportation is not very expensive. The steel that would make a pair of razors, and the cost of transporting them from Sheffield or Paris to New York would form but a very small portion of their price. On the contrary, bulky articles, such as coal and iron, derive a very large portion of their cost from transportation. Coal, that has but little value in the coal mines of Pennsylvania, is sold for six or eight dollars a ton in Chicago. And all the labor employed upon it, is that which is necessary for breaking it in pieces, and removing it from its bed to the house of the consumer.

As, however, the human race is scattered over the face of the globe, and as their wants in all latitudes are so nearly the same, while no country affords facilities for supplying more than a very small number of these wants, it is evident that the labor employed in *change of place* must, in civilized countries, be *most universal,* and must enter essentially into the greatest number of commodities. Of this every one will be convinced who will take any article of dress, of furniture or of food, and consider the amount of transportation that has entered into its production; and, especially, if he take into account the transportation which has entered into the formation of the instruments by which it had been produced. The same truth is also illustrated by the fact, that whole nations, with very small natural advantages, as Holland and Venice, have, in a short period, become immensely rich, merely by conferring change of place on the merchandise and productions used by other nations. Water communication, in the early stages of society, greatly diminishes the cost of transportation, and, of course, increases the facilities of exchange. It is on this account that the first settlements of nations are always either on the shores of the ocean, or along the banks of navigable rivers.

It may also be worthy of remark that, thus far in the progress of society, the ingenuity of man has been more successful in devising means for increasing the productiveness of labor in the second and third, than in the first kind of human industry. Improved agricultural utensils, a better knowledge of the nature of soils, and of the different kinds of grain and edible vegetables, and of manures have added considerably to the quantity of product that can be raised by a given amount of labor. But this increase is small in proportion to that effected by the use of machinery in the case of the cotton manufacturer, and by the use of the locomotive and many other forces. It is, doubtless, wisely ordered that it should be so. *Agricultural labor is the most healthy employment*, and is attended by the fewest temptations. It has, therefore, seemed to be the will of the Creator, that a large portion of the human race should always be thus employed, and that, whatever effects may result from social improvement, the proportion of men required for tilling the earth should never be very greatly diminished. It is also to be remarked, that *division of labor*, which so greatly increases the productiveness of human industry in the other modes of production, can be applied but in a small degree to agriculture. No man can devote himself exclusively to ploughing, sowing or reaping; because only a small part of the year can be employed in either of these occupations. The farmer, must, therefore, practise them all, at different times; and, of course, every farmer must be able to perform not one, but all the several operations required in his trade. This forms another reason why the increase of productiveness of human industry, in this department of labor, has not kept pace with that which has been witnessed in manufactures and commerce.

CHAPTER V.

MEANS FOR INCREASING THE EFFECTIVENESS OF HUMAN LABOR.

THE physical power of man is extremely limited. His strength is soon exhausted. His limbs and muscles unassisted, are insufficient to meet his simplest wants. He needs shelter, cooked food, and clothing. But he could not, with his teeth and nails, cut down a tree and fashion it into a cabin. He cannot, by his hands, either cook his food, or manufacture a fabric suitable for clothing. All these can, however, be done by other agents which he can command and control. Thus, iron can be made to cut down and fashion a tree, fire to cook his food, and a spinning wheel and loom can be made to furnish him with clothing.

As mankind multiply and are bound together in society, individuals are found to differ in capacity. One has special endowments for one kind of labor, another for another. Hence there naturally springs up some systematic arrangement for mutual coöperation to increase the productiveness of the community, by assigning to each the labor for which he is best fitted, and giving all something to do.

Two means by which the effectiveness of human labor is increased, are thus indicated. They are *The Use of Natural Agents*, and *The Division of Labor*.

1. Natural Agents.—*A natural agent*, is any quality or relation of things which can be used for the purpose of assisting us in production. Thus, the light and heat of the sun are natural agents, without the aid of which we could not create vegetable products. Caloric or artificial heat, is a natural agent, without which we could neither cook our food, prolong our lives in cold climates, give any valuable quality to metals, nor create steam for the purpose of machinery. Magnetism is a natural agent, by which we are enabled, in any part of the earth, to know in what direction we are moving. The various powers and instincts of animals are natural agents, by which we accomplish purposes which could not be accomplished without them. Thus, the farmer avails himself of the muscular power and docility of the ox and the horse ; the huntsman, of the fleetness and scent of the hound, etc. Wind, the gravitating power of water, and steam, are natural agents, by which we create the momentum necessary to various operations in the arts.

A tool, or *a machine,* is any combination of matter, by means of which we are enabled to avail ourselves of the qualities or relations of a natural agent. Thus, a lens or burning glass, is a tool, by means of which we concentrate, for useful purposes, the rays of the sun.

A stove, or *a fire place,* is an instrument, or tool, by which we avail ourselves of the calorific properties of fuel.

A mariner's compass is a tool, by which we avail ourselves of the peculiar quality of the magnetic needle.

A water wheel is a tool, by means of which we avail ourselves of the gravitating power of water.

A steam engine is a tool, by means of which we avail ourselves of the expansive power of steam.

The only difference between a tool and a machine is, that the one is more *complicated* than the other. A common hammer is a tool, by means of which we avail ourselves of the gravity and density of iron, and of the power of the lever. A trip-hammer, by which large masses of iron are fashioned and wrought, is called a machine, but the principles employed are, in both cases, the same, only the trip-hammer is moved by a natural agent, water, or steam, while the common hammer is moved by the hand.

The qualities and relations of natural agents are the *gift of God*, and, being His gift, they *cost us nothing*. Thus, in order to avail ourselves of the momentum produced by a water-fall, we have only to construct the water-wheel and its necessary appendages, and place them in a proper position. We then have the use of the falling water, without further expense. As, therefore, our only outlay is *the cost of the instrument* by which the natural agent is rendered available, this is the only expenditure which demands the attention of the political economist.

If we reflect upon the various natural agents employed by man, we shall see that some of them can be used without any tools whatever. Such is the case in agricultural labor, with air, and the light of the sun. Others require only so simple instruments, that their effect upon price is not appreciable. Thus, a mariner's compass, which would last for twenty years, and assist in the transportation of half as many millions' value of merchandise, would cost but a few dollars. Others are used by few persons, and for particular and unusual purposes, as the lens, or the microscope. It is only those agents which require for their employment, machinery of which the cost is appreciable, and which are of so general necessity, that their use enters into consideration in estimating the expenses of production, that require to be specially noticed in Political Economy.

The means most universally required for creating change, is *momentum*, or, as it is commonly called, power. Without this, in agriculture, no change in elementary form, and, in mechanics, no change in aggregate form, and in transportation, no change in place, can be effected.

The natural agents connected with the use of momentum, may be divided into two classes:

1. Those which *create* momentum.
2. Those which *direct it.*

1. Of those which create Momentum, we have two kinds: *Animate,* and *Inanimate.*

1. *Animate.* These are, beasts of draft and burden, generally. The most common of these are, the ox, the horse, and the mule; others in use in particular districts, are the camel, the elephant, the dog and the reindeer.

The subjection of animals to the human will, marks an era in the progress of civilization; and teaches us that the first important step has been taken in the improvement of the condition of man, and of the productiveness of human industry. The ox and the horse have much greater physical power than man. They may also be sustained at a much less expense. Their food is the spontaneous production of the earth, which, for a large part of the year, they gather for themselves, and which requires no labor of preparation. They need no clothing in any latitude, and in the warmer parts of the temperate zone, need no shelter. But, in consequence of his superiority in intellectual endowment, man can direct and govern the physical power of several of these animals, and, by attaching them to agricultural machines, can command that power at his will. If, then, by the use of animals, one man can wield a physical force equal to that of ten men, he will be able to produce, by the labor of a day, ten times as much as he could before the introduction of animate agents. He will, therefore, by the same amount of labor, produce ten times as large an amount of objects of desire; that is, of means of human happiness.

In the earliest stages of society, animate power must be used for the production of momentum, in all the three departments of human industry. In the labors of agriculture, it is still employed, and must probably be thus employed forever. Nothing has yet superseded it, and there is reason to doubt whether any thing ever will to any great extent supersede it. The improvements that have been made by the introduction of other creative forces, have for the most part, been connected with the other modes of operative industry.

2. *Of Inanimate Natural Agents.* The inanimate agents, most commonly in use, are: *The explosive force of Gunpowder, Dynamite, etc.; Wind; The gravitating power of Water;* and *The expansive power of Steam.*

1. *Gunpowder* is used in the blasting of rocks, in hunting, and in war. Its value, in the blasting of rocks, is very considerable. By drilling a small hole, which may be done by one man in a day, and by the use of a few ounces of gunpowder, a force may be exerted, in an instant, producing an effect which twenty men, for several days, could not otherwise have exerted. Hence, it is of very great use in all works of internal improvement, where rocks must be removed, in order to admit the passage of railroads and canals. In fact, it is doubtful whether many of the most important of these works could ever have been executed, but for this agent. Others, if the execution of them were possible, must have been accomplished at so great an expense, that the investment of capital in them would not have been profitable, and, of course, it would not have been made. Nitro-glycerine, a recent invention, has greater explosive force than gunpowder and in the form of dynamite and other preparations is now commonly substituted for it in heavy blasting.

Gunpowder is also used extensively in *war.* If war be beneficial, or even necessary, gunpowder is an agent of the utmost importance; for, by no other means yet discovered, is it possible to destroy so many men with so little physical suffering, and with so little personal labor. It has also a moral advantage over other methods of slaughter, inasmuch as the destruction of human life, in this manner, excites less sensibly the ferocity of the human heart. On this account, wars, since its introduction, have been conducted on more humane principles than formerly. It has also been a valuable auxiliary to the progress of civilization, since it has conferred on civilized, an undisputed mastery over uncivilized nations. There has not been, for centuries, any danger to Christendom from barbarian invasion. Besides, the more energetic are the means of destruction in war, the less is the loss of life in battle. Hence, of a given number of combatants in an engagement, a much smaller proportion is now slain than formerly. This might almost give rise to the paradoxical hope, that some means of destruction might yet be invented, so overwhelming in its effects, as to put the smallest number of men on a level with the greatest, and hence to put an end to wars altogether.

2. *Wind* is another agent used for the creation of momentum. As a stationary agent it is an important mechanical power, in countries destitute of water power, or of the fuel necessary for the production of steam, or of the capital which must be invested in the machinery required in the use of more expensive agents. Its principal advantage is its cheapness. It costs nothing to create it, and the machinery, by which it is applied, is simple, and easily constructed.

The disadvantages of wind are its uncertainty, both in quantity and in time, and the difficulty with which it is regulated. In consequence of the *irregularity* of its *force*, it is impossible to employ it in labor requiring delicacy of operation: and, in consequence of its *uncertainty* in *time*, it could not be employed where the labor of many persons was dependent on its assistance.

As a locomotive power on water, wind was until recently almost universally used in navigation. Though the direction in which it acts is variable, yet nautical skill enables us to use it when blowing from almost any point whatever. Its variation, in the quantity of force, is here also a matter of less consequence, since this circumstance can affect the operation to be performed only in respect to time. And variation, even in this respect, has in a great degree yielded to science and enterprise. It is astonishing to observe with what precision and certainty voyages were made by sail between New York and Liverpool. But with the inventions of Fulton a new era commenced. Steam very soon was employed in the place of wind in the navigation of rivers and along the seaboard. It was not, however, until the year 1837 that the experiment was successfully made, of establishing a regular communication between Europe and America by means of steam. In May of that year, the steamers Sirius and Great Western, the former from Liverpool, the latter from Bristol, arrived in New York. Since that time passages have continued to be made between the above ports with great regularity, and thus far with few disasters. It is demonstrated that the navigation of the Atlantic, by steam, is as perfectly within the power of man, as the navigation of the Thames or the Hudson.

3. *The gravitating power of Water* is another agent employed for the creation of momentum. This is used only as a stationary agent. Its advantages are that it is cheap, tolerably constant, and frequently is capable of exerting great mechanical force. Its disadvantages are, that it is *stationary;* that is, that it can be used only in situations where it has been created by nature. Hence, it is frequently at a considerable distance from the seaports whence the manufacturer derives his supplies, and whence he exports his products. In such cases, the cost of transportation must be deducted from the profits of the establish-

ment, and is of course, to this amount, a diminution of the profits.

Water cannot always be commanded in *sufficient quantity*. Very few mill-seats are secure from the liability to suffer from the want of water. This is a great inconvenience, inasmuch as, in seasons of drought, a large number of the laborers must be unemployed, and a large portion of the expenses of the establishment must be incurred, without yielding any remuneration to the proprietor.

Another disadvantage of water power is, that it is liable to danger from inundation. Though this may be guarded against in many cases, yet it frequently can be done only at an expense which greatly reduces the cheapness of the agent. Notwithstanding these disadvantages, water power will probably be always used, where great mechanical force is required; where the machinery to be employed is simple, and where the operation does not require the greatest possible nicety of execution. Recent inventions, however, have greatly improved the steadiness of this power and men's control of its action.

4. *Steam* is the power, however, most commonly in use at present. Its advantages are, that it can be used to create any required degree of mechanical force; that it is perfectly under human control; that it may be created in any place where fuel can be obtained; that it can be used at will, either as a stationary, or a locomotive power; and that it can be made to act with perfect regularity. Its only disadvantage is its *expensiveness*. The machinery by which it is generated is costly, and requires frequent repairs; and the fuel, by which it is maintained, is a very serious item of consumption. The price of engines, however, has been much reduced, as the demand for them has increased. And by improvement in their construction, the consumption of fuel has been greatly diminished, while increased facilities for transportation have mate-

rially reduced its price. The introduction of steam power greatly reduced the price of fuel in Great Britain, until the rapid consumption threatened to exhaust her stores.

The question whether steam or water power should be used in any particular case, is commonly to be decided by their relative expensiveness. This will be decided, principally, by the *place* in which the power may be required. Water power will generally be the cheaper where it can be procured in abundance, and sufficiently near to a market or to tide water. But where it is variable in quantity, or is at a considerable distance from the place of delivery, the cost of transportation will frequently overbalance its other advantages, and render steam power the more economical. Machinery, propelled by steam, can be erected and carried on upon a wharf, or in the midst of a city; and hence it avoids all the cost of unnecessary transportation. Machinery propelled by water power can be erected only at the place where the water power exists, and of course, is subject to all the expense of transportation between that place and the market.

The ADVANTAGES of *inanimate over animate natural agents, are several.*

1. Inanimate agents can, within a small compass, and with comparatively little weight, produce *a vastly greater amount of momentum,* than animate agents. Thus, a steam engine, of one hundred and fifty or two hundred horse power, occupies but a small space, and forms but a small part of the cargo of a vessel. But so great a number of horses could scarcely be carried in any vessel designed to transport either freight or passengers; and besides, no mechanical arrangement has yet been devised, by which such a number of animals could conveniently be employed upon one operation.

2. They are *continuous;* that is, they are never liable to fatigue, and never need rest. Animals must spend the greater part of their time in feeding or in repose. Especially is this the case, if they are worked rapidly. During this time, the labor which they perform must either be suspended, or else other animals must take their place. A horse cannot labor severely for more than eight hours in twenty-four. Hence, if the uninterrupted labor of horses were required for twenty-four hours, three relays must be provided. Thus, if a boat were required to perform a voyage in twenty-four hours, she must employ three relays of horses; that is, a steamboat, worked by a power equal to that of one hundred and fifty horses, would require four hundred and fifty horses, in order to create the necessary momentum.

3. Hence, there is a great gain in *Economy.* The first cost of inanimate is generally less than that of animate agents; they are liable to no diseases; they require no food; and create expense only while they are performing their work. Were the labor now performed by steam, to be performed by horses, the price of the ordinary necessaries of life would be quadrupled, and many articles of ordinary use would be placed out of the reach of any but the most opulent. Nor is this all. The substitution of inanimate for animate power has a great tendency to reduce the cost or to increase the supply of all agricultural products. Suppose that, by the use of steam, one thousand horses can be dispensed with. A horse requires for sustenance, throughout the year, as much agricultural produce as would support eight men. If, then, these one thousand horses can be dispensed with, there may be produced, on the land which was formerly employed for the production of hay, as much wheat as will support eight thousand men. This must, at first, reduce the price of wheat; and the

result would be, that the district would support eight thousand more men than before.*

4. There is also, commonly, a gain in *personal safety*. Inanimate agents act under laws which may be known and obeyed, and of which the results may be commonly foreseen and guarded against. Animals are endowed with passions and will, which we can frequently neither control nor influence. Besides, the greater expensiveness of the individual machines employed in the use of inanimate agents, renders it for the interest of the proprietor to employ men of experience and responsibility to manage them. This very sensibly diminishes the risk. When we reflect upon the vast amount of travelling by steamboats and railroads, it must be evident that, notwithstanding the accidents to which they are liable, a vastly greater amount of human life would be sacrificed, if the same number of persons were transported by horses.

5. Inanimate agents can be used *without the infliction of pain.* Inanimate agents are insensible. Where the labor to be accomplished is either severe, or where it requires great speed, animals must be rapidly destroyed. This exposes them to great suffering. A horse in a stage coach can rarely travel *rapidly*, more than ten miles a day; and most horses will endure even this labor but for a short time. From this suffering, inanimate power is exempt. It never endures pain from being over driven.

6. Animate power *decreases with velocity.* Hence, we must soon arrive at a point beyond which it can no further be used to create momentum. If we represent the tractive force of a horse, when moving at two miles an hour, at one hundred, his force at the rate of three miles, will be

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* These statements are allowed to stand as written by Dr Wayland. But experience has shown that the use of steam has, by the stimulus given to industry, caused an increase rather than a diminution of the number of horses kept. C.

eighty-one : at the rate of four miles, sixty-four; at the rate of five miles, forty-nine; at the rate of six miles, thirty-six; while at the top of his speed, he can carry nothing more than his own weight. An engine, on the contrary, may be made to work within certain limits, as powerfully at one degree of velocity as at another. In all cases, therefore, in which both great power and great velocity are required, inanimate power must, of necessity, be employed.

From these causes, we see that inanimate is rapidly taking the place of animate power, both where stationary and where locomotive force is required. By the additional speed which it is capable of producing, it gives rise to great economy of *time*. This, to all persons engaged in active employments, is a consideration of vast moment. Being a continuous agent, it is also enabled to act with the greatest certainty. Hence, men may adjust their transactions, in different places, with entire precision. This is also another source of economy, both of time and of capital. And, besides, notwithstanding the expensiveness of the arrangements for the use of locomotive forces, the amount of additional travelling to which they give rise, is so great that the expensiveness of transportation between different places is, in general, materially diminished.

Of the Natural Agents by which Momentum is directed and applied.—It is obvious that a great addition is made to human power, where the agents for *creating* momentum have been discovered. But this is not all. Several combinations of matter may be formed, by which mere human force may be greatly assisted, and which, by being united with the agents for creating momentum, may greatly increase and vary and give adaptation to its utility. These are called *Mechanical powers*, which are treated of at large in works on Mechanics and

Natural Philosophy. In their simple form, they are the *lever*, the *wheel and axle*, the *inclined plane*, the *screw*, the *pulley*, and the *wedge*. They are variously combined for producing the different results of mechanics, but may be all reduced to these simple elements.

By means of these, the muscular power of man is enabled greatly to increase its effect; that is, a man by his own strength can now accomplish labor which he could not accomplish without them. Though these instruments give no new strength, yet they greatly increase the effectiveness of that which already exists; and hence, their invention marks an important era in the progress of civilization. It is also to be remarked that their origin, in point of time, is far in advance of the discovery of the creative agents. Archimedes had made great progress in the discovery and application of these *modifying* powers when the use of *creative* agents was almost unknown.

The triumph of human skill is, however, achieved when these two forms of natural agency are combined in a single machine. By the *one* we *generate* power to what extent soever we choose; and by the *other* we *modify* it in any form, give to it any application, and direct it to any purpose that our convenience may require. It is in this manner that man renders all the various powers of nature tributary to himself. He can thus create and use as he pleases as great a power as he desires. He devolves the labor on nature, and he has only to fabricate the instruments and give them their direction. He is successful just in proportion as he does this; since nature always works with undeviating accuracy, with unerring skill, with indefatigable perseverance; and she always works for nothing.

It may be useful to specify some of the results accomplished by the various instruments which man employs for modifying that momentum which is exerted by the first class of natural agents.

1. We are thus enabled to *change the direction* of the power. Thus, in the cylinder of the steam engine, the momentum is created either in perpendicular or horizontal strokes. This, being by means of an arm and a crank changed into a circular motion, moves the paddle-wheels of a steamboat. Thus, also, in the machinery for moving a trip-hammer, a circular is changed into a perpendicular motion, by the striking of the cogs of a wheel upon the short arm of the lever, while the hammer is attached to the other arm.

2. We exchange *power for velocity.* This is done in all spinning machinery. By water or by steam, we cause a large wheel to revolve ten, twenty, or thirty times in a minute, and with a power equal to that which could be produced by fifty or one hundred horses. In spinning, however, we need small power but great velocity. Hence, by the combination of various large and small wheels we produce a velocity, in a thousand spindles, equal to many thousand revolutions in a minute. The whole of this fifty or one hundred horse power is thus spread over a large manufactory, and adapted by various contrivances to every degree of velocity and every form of motion that may be required.

3. We are thus enabled to *exert forces too great for animate power.* By water power or by steam we can generate as great a force as we please; and we have only to combine with it the proper adjustments, in order to exert upon any point any momentum which we desire. The power required to roll and hammer iron or copper, to propel steamboats, to forge anchors, and that used in several other of the arts, is greater than could be exerted by any animate force with which we are acquainted, unless it were exerted by means of some combination of the mechanical forces.

4. We are thus also enabled to *execute operations too delicate for human touch.* Very delicate operations soon

weary the nervous system by the excessive attention which they of necessity require. Thus, in order to spin the finest thread on a spinning wheel there must be great accuracy, both in the velocity of the wheel and in the muscular power exerted in drawing out the thread. This requires an effort of attention which the human system cannot long maintain, and of course, the thread will frequently be uneven. But by means of machinery both of these operations may be adjusted with mathematical accuracy; and as machines have no nerves, they will be perfectly faithful to that adjustment. Hence machinery is necessarily used in the manufacture of such articles as require for their formation identity of result, such as screws, types, etc. Nevertheless it is a singular fact that no fabrics have yet been produced by machinery equal to the Belgian lace or the India shawls wrought by hand. Careful training and hereditary knack, cultivated through many generations, enable human nerves and muscles to bring forth the most delicate and perfect products of labor and skill, though at an immense expenditure of labor.

5. By means of machinery, we are enabled to *accumulate power*. We thus exchange a continuous and small force for a sudden and violent one. Such is the case with the pile-driver, and the common beetle or mallet, when used in combination with the wedge.

6. By the same means we are enabled to *exchange a short and irregular effort for a continuous and regular movement*, or to spread the action of a short, over a long period of time. This is done in clocks, watches, and other similar machinery. Here we spread the action of a minute over a day, or a week, and with almost mathematical accuracy.

In consequence of the above mentioned application of machinery, various other advantages are realized in production. For instance; there is frequently a great saving of material, as in the change from making boards with the adze, to that of making them with the saw; and again the labor of natural agents is so much cheaper, that many articles, which would otherwise have been worthless, are now deserving of attention, as they may now be profitably endowed with some form of value.

We append to these remarks upon the use of natural agents an extract very graphically describing the power of the steam engine, which has commonly been ascribed to Lord Jeffrey, of Edinburgh:

"It (the steam engine) has become a thing, stupendous alike for its force and its flexibility; for the prodigious power which it can exert; and the ease, precision, and ductility with which it can be varied, distributed, and applied. The trunk of an elephant, that can pick up a pin or rend an oak, is as nothing to it. It can engrave a seal, and crush masses of obdurate metal before it; draw out, without breaking, a thread as fine as a gossamer; and lift up a ship of war, like a bauble in the air. It can embroider muslin, and forge anchors; cut steel into ribbons, and impel loaded vessels against the fury of the winds and waves.

"It would be difficult to estimate the value of the benefits which these inventions have conferred upon the country. There is no branch of industry that has not been indebted to them, and in all the most material, they have not only widened most magnificently the field of its exertions, but multiplied, a thousand fold, the amount of its productions. It is our improved steam engine, that has fought the battles of Europe, and exalted and sustained, through the late tremendous contest, the political greatness of our land. It is the same great power, which enables us to pay our national debt, and to maintain the arduous struggle in which we are still engaged, with the skill and capital of countries less oppressed with taxation.

"But these are poor and narrow views of its importance. It has increased, indefinitely, the mass of human comforts and enjoyments, and rendered cheap and accessible, all over the world, the materials of wealth and prosperity. It has armed the feeble hand of man, in short, with a power to which no limits can be assigned; completed the dominion of mind over the most refractory qualities of matter; and laid a sure foundation for all those future miracles of mechanical power, which are to aid and reward the labors of after generations."

CHAPTER VI.

DIVISION OF LABOR.

THE effectiveness of labor is increased by systematizing its operations. The principle is that *different kinds of labor be distributed to different classes and individuals, so that each shall do that for which he is best fitted.*

The principle comes out of that order of nature which has given to certain regions of the earth peculiar adaptations for certain productions and to certain individuals peculiar endowments for certain kinds of work; and also from providential circumstances which have directed the efforts of different nations and classes and individuals, to specific forms of production.

It is illustrated on a broad scale, in the different industries of different nations, adapted to their respective advantages. It thus gives rise to the wide commerce of the world. It is illustrated also in all civilized communities, in the distribution of the various forms of service, trades and professions to different people, according to their several capacities, tastes and circumstances. It thus gives rise to the multifarious exchange of values in detail, which passes objects of desire from producers to consumers, and constitutes so large a part of the business of every civilized community. It is manifest that the results of productive labor are both increased and improved when the farmer and the baker, the blacksmith and the jeweler, the weaver and the tailor, the merchant, the lawyer, the doctor, etc., each devotes his energies to the work of his particular calling.

Some application of the principle is essential to the organization *of civilized society*; and civilization advances as this principle is carried out in minute details. The ramifications of the principle are many and exceedingly intricate. For illustration, we may start with the loaf of bread on our table and trace out the various forms of labor directly or indirectly concerned in bringing it before us, fit for food. The loaf came to us from the baker, who received his flour from the miller, who in turn received his grain from the farmer. This line of connection is simple and direct. But if we step into the bakery, we see at once that many other forms of labor are involved in this product. The mason and the brick-maker and the lime-burner have all done something to build the oven; the services of the carpenter, the blacksmith and the tinner, were necessary to form the few simple tools required; another line of laborers were employed to cut or dig, to transport and to prepare the fuel; others still were concerned in producing the salt, the yeast and the soda mixed with the chief ingredient; and the tools and materials of each of these branches of labor required many other kinds of labor. We pass to the mill whence the flour came, and here we have to recognize besides the miller and his immediate helpers, the various laborers who improved the water-power, built the mill, prepared the mill-stones, contrived and framed the machinery, consisting of many parts, each involving diverse labor and skill, and those who made the barrels, and packed and transported the flour; and in addition to these, are the many a little further off who furnished the instruments and materials for their varied work. We pass on to the farmer who raised the wheat, and with him pass before us all concerned in the culture and harvesting of his crop, all who had to do with clearing, fencing and draining the fields, and all employed in the manufacture of his divers tools. Then, back of all these, was the seed-wheat and the complication of labor involved in its production; and in each line of industry noticed, the ramifications run back indefinitely to the labor of many groups and successive generations of men. Who can reckon up all the different persons and forms of labor represented thus in the bread just ready to be eaten?

Contrast with this complicated division of civilized industry, the rude efforts of the savage who combines in one person all kinds of labor. The Indian squaw makes her own hoe, scratches the ground, plants her corn, tends it, gathers it, pounds it into hominy, brings in her own fuel, wets up her cake and bakes it in the ashes. The cost of this imperfect product, reckoned in hours of toil spent upon it by the single laborer, is more than a hundred fold greater than that involved in producing the better article, which represents an infinitesimal quota of labor expended by each of a hundred or more persons contributing to the common result.

From this broad, general view, it is evident that this principle of Division of Labor must enter into every department of Political Economy. Indeed, the whole science grows out of the manifold bearings of this principle in the structure and functions of civilized society.

But as it relates to the department of Production, the principle is presented in a narrower and more specific view. Here the expression Division of Labor has a *technical meaning*, respecting the production of one or another particular product. Suppose an establishment for the manufacture of an article, watches for instance, is projected. The largest and best results with the least expenditure of labor are desired. Obviously it will greatly economize labor to give to each man or set of men one part of the watch to make. In the technical sense, then Division of Labor implies two things.

1. *An analysis* of the article to be produced, and of the work to be done into distinct and simple parts.

2. *A distribution* of these parts to the persons employed, such that each workman shall confine himself, as nearly as possible, to a single operation.

The arrangement contemplates such an adjustment of the processes that the several operations shall keep each other going. One man's work on one part, may balance that of three or four on another. The system is complete and perfect when there are no superfluous hands and none are kept idle, waiting on others' movements,—when the several processes fit into each other like the gearing of smooth running machinery.

The Special Advantages of Division of Labor may be stated as follows:

1. Division of labor *shortens the period required for learning an operation.* The more complicated the operation, the longer is the time necessary for acquiring the skill requisite to the performing of it successfully. But this time spent in learning, is useless to the operator and to society, except in so far as it is necessary to the creation of the product. The longer the time necessary for learning an operation, the higher must be the wages of the operator for the remainder of his life; and also, of course, the greater must be the price of his products. If this can be lessened, the price of course will fall. That this is lessened by division of labor is evident from an obvious example. Suppose that a given process, say the making of nails, consists of seven operations; and that each of these operations required one year's practice before it could be successfully performed. Now, if seven men were to learn this occupation and each one were obliged to learn every

operation, the time required would be 7×7=49 years, whereas, if each of them were required to learn but one, the time would be but 7×1=7, or, the difference would be 49—7=42 years of human labor, or six-sevenths of the whole time, which would thus be saved. There would be six years more of productive labor in the life of each of these men; and, as they had spent less time in acquiring their art, they could afford to exercise it for lower wages.

Besides, there is intimately connected with this cause another of considerable importance. Every one in learning an art, must, by *unskilfulness*, destroy a considerable portion of capital. And this amount of capital will be in proportion to the number of operations which he is obliged to learn. Thus, suppose that a man learns seven operations, and, in learning each destroys ten dollars' worth of capital, the amount which he will destroy in acquiring his whole trade will be 7×10=70. If he have to learn but one, it will be but ten dollars; and thus, the difference will be 70—10=60 dollars, upon every such individual. A difference so great as these two combined, when spread over the whole face of society, will have no inconsiderable effect upon the annual net revenue of a community.

2. When one man performs all the operations required in a complicated process, *much time is lost in passing from one operation to another*. By division of labor, this loss is *avoided.*

The effect of habit is known to every one. It renders any operation easy, which is frequently repeated. The mind and the muscles become adapted to a particular form of labor; but if that form of labor be suspended and our attention be directed to another, it requires a considerable time before we can acquire a different habit, and, in the mean time, the good effects of the preceding habit are, to a considerable degree, lost. Hence, he who is frequently passing from one occupation to another, is in the condition of him who is, during his whole life, *forming habits ;* and never in the condition of him who has the advantage of habits *already formed.* Besides, this long habit produces in the muscles a capacity for continued exertion. He who is in the *habit* of performing an operation, can perform it without sensible fatigue for several hours together. Every one who has ever sawed wood or used a spade in a garden, is sensible of this fact. Now, all this advantage is lost by frequently turning from one operation to another.

3. Where complicated *tools* are to be used and there is no division of labor, much time is also lost in *adjusting* them to the different kinds of work. By division of labor this disadvantage is obviated. Suppose that nails of different sizes are to be made, and it is necessary that the machinery, in order to adapt it to the different kinds of work, should be frequently adjusted ; the time so occupied produces nothing and is lost. If, on the contrary, one machine is permanently used for the manufacture of nails of one particular size, all this loss is avoided. This is also more obvious when the adjustment involves expense ; as, for instance, when a furnace is used. If a furnace be heated, and then suffered to cool while the operator is performing some other labor, the fuel consumed after he leaves it, and that which is used to bring it again to the requisite temperature are a total loss, in addition to that of the time and labor required in kindling the fire, and in waiting for the rise of temperature. By dividing the labor so that one person shall be always employed at the furnace, while others are employed at other parts of the process, much capital and labor will be saved.

4. By constantly pursuing the same occupation, a degree of *skill and dexterity is acquired,* which greatly increases the productiveness of human labor. This advantage is lost by employing the same individual upon several operations. Adam Smith informs us, that a blacksmith

who occasionally makes nails, but whose whole business is not that of a nail-maker, can make but from eight hundred to one thousand nails a day; while a lad who has never exercised any other trade, can make upwards of twenty-three hundred a day. All who have been accustomed to visit manufactories, must have been surprised to observe the dexterity which is acquired even by children in performing the operations in which they are exclusively engaged. It is probable that the performers of jugglery, or sleight-of-hand, derive their skill almost entirely from this cause. They seldom perform more than a few operations, but by practicing these, and these alone, for a great length of time, they at last attain to a proficiency which, to a spectator, is incomprehensible.

5. Division of labor *suggests the contrivance of tools* for the performance of the operation in which it is employed.

The more completely any process is analyzed, the simpler must become the individual operations of which it is composed; and the simpler any operation is, the easier is it to contrive a tool or an adjustment by which it may be performed. Adam Smith informs us, that in the first steam engines, boys were constantly employed to open a communication between the boiler and cylinder, according as the piston ascended or descended. One of these boys observed, that, by uniting the handle of the valve which opened this communication with another part of the machine, the valve would open and shut without his assistance and leave him at liberty to play with his fellows. One of the most important improvements of this machine was thus by division of labor, brought within the capacity of a playful boy. It would have been very difficult to invent machinery for the making of nails, when all the processes were considered as a complicated whole. But after the several operations are divided and are assigned to individuals separately, it becomes comparatively easy to construct an adjustment by which any of them, singly, could be performed. This is the first step in invention. But this is not all. After these several single instruments have been invented, the next step is to combine them together. This is the most finished effort of mechanical genius. This is the principal difference between a tool and a machine. A tool performs one single operation ; a machine combines several tools together, and accomplishes either the whole, or a considerable part of a complicated process.

6. Every one at all acquainted with manufacturing employments, must have observed that some of the operations in a given process, require greater muscular power or greater skill or greater dexterity than others. Some, for instance, can be performed only by the most experienced workmen, while others can be perfectly well performed by children. Now, by division of labor a manufacturer is enabled to employ upon each operation *precisely the labor adapted to it,* and is obliged to pay for each portion of the labor no more than it is actually worth. This must greatly diminish the cost of production. Thus, the manufacture of pins is divided into ten different operations, and each operation employs one laborer. But some of those laborers are men ; others are women and children ; and their wages vary from six shillings to four and a half pence sterling a day. If the labor were not divided, one person must understand the whole process, and therefore, must be employed at the highest price of labor ; and hence, he must be paid at the rate of six shillings a day for that part of the work which is worth only four and a half pence a day. Every one must see that this would greatly increase the price of pins, and also occasion a great deficiency in labor. It is by this means, also, that occupation is provided for the weak and the aged, for females and for children who

would otherwise be unable to earn any thing. Thus, *all the labor of the community is rendered productive,* and an immense amount is annually added to the revenue of a country. Nor is the gain to be estimated at simply what is thus earned. The whole community is thus acquiring those habits of industry and self-dependence, which are essential to its happiness and well-being, no less than to the rapid accumulation of its capital.

Nor are the benefits of the division of labor confined to mechanical processes. The results have been equally interesting in those cases where this principle has been applied to *intellectual labor.* The effect of such a division is seen in the following account, which is introduced here, not only because it very happily illustrates this whole subject, but also because it may suggest to scientific men some other cases in which it may be again applied with similar benefit.

> "During the period of the French Revolution, the government was desirous of producing a series of mathematical tables, in order to facilitate the extension of the decimal system, which had been recently adopted. They directed their mathematicians to construct such tables on the most extensive scale. The superintendence of the work was confided to M. Prony. It happened that shortly after he had undertaken it, he opened in a bookstore Adam Smith's "Wealth of Nations," and, by accident, turned to the chapter on division of labor. The thought immediately suggested itself that this might be adopted in the work in which he was engaged. He immediately followed out the suggestion, and arranged his plan accordingly. He divided the persons who were to execute the labor into three sections:
>
> *The first section* was composed of five or six of the most eminent mathematicians of France. Their duty was to ascertain the analytical expressions which were most readily adapted to simple numerical calculation, and which could be performed by many individuals employed at the same time. The formulæ on the use of which it had decided, were to be delivered to the second section.

The second section consisted of seven or eight persons of considerable acquaintance with mathematics, whose duty it was to convert into numbers the formulas put into their hands by the first section; and then to deliver out these numbers to the members of the third section, and to receive from them the finished calculations. These they could verify without repeating the work.

The third section consisted of sixty or eighty persons. They received the numbers from the second section, and, using nothing more than addition and subtraction, returned to that section the finished tables. Nine-tenths of this class had no knowledge of arithmetic beyond its first two rules; and it is remarkable that these were usually found more correct in their calculations than those who possessed a more extensive knowledge of the subject. The extent of the labor which was thus executed in a remarkably short space of time, may be estimated when it is stated that the tables thus formed are computed to occupy seventeen large folio volumes. And yet we see that the greatest part of the labor was actually accomplished by persons who might be employed at very small expense, and who could do the work assigned them as perfectly as those whose labor was the most expensive.*

* Babbage on Economy of Machinery

CHAPTER VII.

LIMITATIONS TO THE DIVISION OF LABOR.

THE principle so beneficial in its varied application, is limited by certain conditions which cannot be set aside. We may notice four such restrictions.

1. *That which comes from the Nature of the Process.* Every process can be analyzed into its ultimate elements; that is, into the various simple processes of which it is composed. Thus in pin-making the straightening of the wire is one operation, the cutting it into equal lengths is another, the sharpening of the points is another, the heading of the pin is another, etc. But when we have reduced the operation to its simple elements we can proceed no further. Hence, here is our necessary limit; for it is *no division of labor* to employ two men to perform precisely the same operation. Hence an establishment which carries division to this limit, will be able from what has been said, to undersell another which does not carry it to the same degree of perfection. And hence, in establishing a manufactory, it is important so to adjust the number and kind of workmen, that, when the different operations of a process have been assigned to different persons, *these persons may be in such proportions as exactly and fully to employ each other.* The more perfectly this is accomplished the greater will be the economy. And, this having been once ascertained, it is also evident that the establishment

cannot be successfully enlarged, unless it employ multiples of this number of workmen.

2. *Division of labor may be limited by Deficiency of Capital.* Division of labor in manufactures, cannot be carried on unless the proprietor have sufficient capital to employ, at the same time, all the persons necessary to such a division, and to keep them so employed until the proceeds of their work enable him to furnish them again with fresh material. This is of course a considerable outlay, and supposes a considerable accumulation of the proceeds of pre-exerted industry. Hence, in *a poor or in a new country, there can be but little division of labor.* No one has more than enough capital to employ himself, and, perhaps one or two laborers; and hence each individual performs all the operations of each process, and frequently those of several processes. The same individual is the farrier, blacksmith, cutler, and perhaps wheelwright, for a whole settlement. To illustrate this by a single instance : If a nailer be able to purchase no larger amount of iron and coal than he can use in the manufacture of nails in a day, he must perform all the parts of the process himself; and of course must labor very disadvantageously. As soon however, as he is able to double his capital, he may employ another person to work with him, and they may then introduce a division of labor. When he has tripled his capital he may employ another workman and carry his division still further. He may thus go on until he has reduced the process to its simplest elements. When he has gone thus far, the accumulation of his annual capital will enable him to invest something in fixed capital. He will thus be able to purchase some of the simpler machines by which some of the parts of his process may be executed. To these he will add others as he advances in wealth, until his accumulated means enable him to combine them into one machine for completing the whole process. Thus he becomes a

manufacturer, and derives the larger part of his revenue from the use of his fixed capital. At every step his gains will be greater, and at the same time the price of his product will become less. It is not pretended that all these changes always, or frequently, take place within the life-time of a single individual. The progress of society is not generally so rapid. Yet they sometimes occur in the manner stated. The illustration shows the tendency of things. But whether the results are comprised in the life-time of one, two, or three individuals, the principle is the same.

3. *Division of labor may be limited by the Demand* for the article produced. Suppose that, in a given district, there is a demand for one hundred pounds of nails per day and that these can be made by two men. If three men could, by division of labor, make two hundred pounds per day there would be but small gain either to the workmen or to the public; because these men would of course lie idle half of the time, and for this time they must be paid as well as for the time in which they are employed. Or, if they did not lie absolutely idle, that portion of the time which was employed on other labor would be of comparatively small value; and they by attending to other business, would lose the skill which complete division of labor confers, and which is one of its principal benefits. The case is still stronger, if we take into view the fact that division of labor supposes a large investment of fixed capital, and that those who are educated to any manufacturing business, can rarely employ themselves upon any thing else. If the laborers at any of our manufactories were employed only half the time their wages must be doubled; for their families must be supported one day as well as another, and thus the interest of the whole investment must be charged upon half the quantity of product. These causes together with the loss of skill in workmen, would more than double the price of products, and would of ne-

cessity, carry back the division of labor to its less perfect state.

But this demand must depend upon several circumstances. The most important of these are the following:

a. The *Number of the Consumers.* When the number of inhabitants is small as in a new settled country, or in an isolated situation, the demand must of course correspond to their number. One hundred men will require but one-tenth as many hats or shoes as one thousand men. It is on this account that wealth accumulates most rapidly on navigable waters, because the market of the producers is not limited to themselves, but may be easily extended to other places.

b. The Wealth of the inhabitants. Demand does not signify *simple desire* for an article, but *desire* for it, combined with the *ability* and *willingness* to give for it what will remunerate the producer. Hence, the greater the ability in a given population to remunerate the producer, the greater will be the demand. The demand for hats in a population of one thousand men, would be limited to those persons in that population who *were able to buy a hat.* The larger the proportion of such individuals, the better it would be for the hatter and for every other producer. Hence we see that every individual is interested in the prosperity of every other individual in the community.

c. The Cost of the article. The greater the cost of the product, the smaller will be the number of persons who are able to purchase it. Hence the less will be the demand; and hence, also, the less opportunity will there be for division of labor. And besides the greater the cost of the article, the greater amount of capital is required in order to produce it by division of labor. Hence, this cause operates in two ways to prevent the employment of this means of effecting the reduction of price. Thus, if a community consist of one thousand men, and of these one hundred be worth one thousand dollars per year; four hundred be worth five hundred dollars; and the remainder be worth but two hundred and fifty dollars per year; and an article be produced within the reach of only the first of these classes, it can have but one hundred purchasers; if it come within the reach of the second class, it will have five hundred; and if it come within the reach of the third class, it will have one thousand purchasers. Hence it is that division of labor is but sparingly used in the manufacture of rich jewelry, and in articles of expensive luxury; while it is so universally used in the production of all articles of common use. Hence we see, that the benefits of the use of natural agents and of division of labor, are vastly greater and more important to the middling and poorer classes, than to the rich. These means of increased production, reduce the cost of the necessaries and of the essential conveniences of life to the lowest rate, and of course bring them, as far as possible, within the reach of all.

d. Facilities of Transportation. This is evident, from what has been said. The cost of an article depends not only on the cost of its *original* production, but alsc upon the cost necessary to *bring it* to the consumer. Coal may be very cheap at a coal mine, but if it must be borne on the shoulders of men to the consumer, it would at a few miles from the mine become so dear that no one would be able to use it. The demand would be so small that there would be no profit either in investing capital in the machinery, or in employing division of labor to raise it from the mine. But if horses be used to transport it to the consumer, the demand will increase. Again, if for horses, canals and railroads be substituted, it will become cheap, and the demand will increase still more; and, with every such improvement that circle of consumption expands, of which the mine is the centre. The same principle applies to manufactures, specially those of iron or heavy ware, and it applies just in proportion as transportation forms a large or small part of the cost to the consumer. And thus, in general, we see the principle on which facilities for internal communication improve the condition of both the other branches of industry. For this reason the price of land and grain rises in a district through which a canal or a railroad passes; and for the same reason manufactories may at one time be successfully established in situations where they at another time would have been useless, if not ruinous to the proprietor. And still more generally, we see the manner in which all the branches of labor assist each other. A railroad or a canal can never profitably be constructed in a country where there is nothing to be transported. But where agriculture, manufactures and commerce are productive, and hence require a large amount of transportation, there these facilities are immediately in demand. Were Liverpool and Manchester to decline, of what use would be the railroad between them? And, on the other hand the railroad between them, by reducing the cost of all articles bought and sold, diminishes the cost of living in both places, enables the producer to come into market with greater advantages, increases the profits in all kinds of industry, facilitates the accumulation of capital and thus adds greatly to the annual revenue of both cities.

4. *The Division of Labor is limited also by the Executive capacity of man.* In every large establishment there must be one person at the head, whose supervision must be felt in all departments, to hold every one employed to strict responsibility and fidelity in his particular service. His judgment must determine a thousand questions respecting both general results and detailed operations. And his will must pervade the whole system of divided labor, as a guide

and stimulus to many subordinate wills, that all may work in harmony for a common end. The qualities which fit one for these exercises we call *executive capacity.* The successful management of a great manufactory thus requires talents of the highest order. But in the man most highly endowed, there is a limit of both capacity and endurance. Theoretically, it would be an advantage to have the entire industry of a state perfectly systematized on the principle of division of labor. But no one human head would be equal to the supervision and control essential to the harmony and success of such an arrangement. We have frequent and sad instances of minds deranged, of lives sacrificed and of great enterprises wrecked by an expansion of business beyond the capacity of the manager's mind. In these days, this limitation of the principle under consideration is too little regarded.

Evils incident to the Application of this Principle.—Under the division of labor so advantageous in most respects, there are liabilities and tendencies to evil which must be noticed. We mention

1. *The Danger of impairing physical Health and Vigor,* A variety of exercise is essential to the full and healthful development of the faculties and functions of the body. But the division of labor often involves long and close confinement to a single operation—an overtasking of some one limb or set of muscles—a posture which may cramp and oppress the vital organs—exposure to deleterious gases and exhalations—the breathing for hours in crowded rooms of air bereft of oxygen and charged with carbonic acid. It offers also strong temptations to the confinement and severe labor of children not yet grown, by which their bodies are depressed and their lives are shortened. The vital statistics of large manufacturing towns present too many painful facts illustrating this evil. There is a real

danger here, but it may be in great measure counteracted by the careful study of sanitary measures. Wise economy dictates the introduction and use, even at some expense, of appliances which secure to laborers of every kind pure air and varied physical exercise.

2. *The mind is liable to be Contracted and Enfeebled.* When one's attention and energies are all absorbed in a minute operation, such as sharpening pins or counting buttons by a machine, the free development of the mind is likely to be cramped and hindered. This liability must be recognized. It is however relieved in part by the law of habit, inherent in the very constitution of the mind. Under this law, the mind's action in the particular operation by constant exercise runs on almost unconsciously with the machine, as though identified with it, and the other faculties are free to be engaged about other matters ; just as when walking, while each step really requires an exercise of attention, judgment and will, the whole action is so much a matter of habit that the mind is free for the exercise of fancy or profound thought on a wide range. Moreover, the association of numbers in large establishments, gives scope for the introduction of means of intellectual improvement, such as schools, lyceums, reading-rooms and lectures which may effectually counteract this tendency, and become a real advantage to the whole community of laborers.

3. *The Division of Labor may involve some loss of Independence and Self-Respect.* It diminishes the numbers of those who manage business for themselves and thus throws into the class of workmen dependent on wages, many capable and worthy men whose manliness and character would be better developed, and whose chances for acquiring wealth would be greater under the responsibility of a business of their own. In large establishments, also, the fate of a great body of workmen hangs on the success

or failure of a few managers and capitalists. The failure of a single manufacturing company thus involves a sweeping disaster, and the mischiefs of a general financial crisis are aggravated as all are involved together. This evil may be relieved by devices for giving employés a personal interest in the business and by a system of promotion to higher and more responsible trusts on the ground of fidelity and efficiency. There can be no doubt that on the whole, the average condition and prospects of working men are improved by the systematic arrangement which under the principle of division of labor prevails in large industrial establishments.

4. *The principle of division of labor favors combinations and strikes,* as it brings together and holds in intimate association, as a class, great numbers of dependent and often unintelligent workmen. We only mention this item in this connection. The full discussion of this topic belongs to the third division of our science—distribution, and will there be treated at some length.

These incidental evils are greatly overbalanced by the advantages which proceed from the application of this law. Yet they are of importance enough to deserve serious consideration and to engage earnest study to devise means for their relief. Far-seeing self-interest, no less than the spirit of philanthropy prompts to such study and such efforts.

International Division of Labor.—This phase of our subject demands some special notice and illustration.

It is manifest that the different portions of the same country possess different facilities for producing the objects of human desire. No district possesses advantages for producing everything; but almost every district possesses peculiar facilities for producing something. Now, *natural advantages* are clearly nothing more than *means of increased productiveness of labor* in the creation of any particular product. If one soil will produce forty bushels of wheat to the acre, with the same labor that another will produce twenty, the labor upon the first is twice as productive as that upon the second; that is, the owner of the one has a machine by which he can, with the same labor, produce twice as much as his neighbor. But perhaps the soil which will produce only twenty bushels of wheat, will produce forty bushels of corn per acre, while the other soil will produce only twenty. This second soil is therefore an instrument which gives a double productiveness to labor in the raising of corn. Now it is manifest that if each one devotes himself to the production of that for which nature has given him peculiar facilities, his amount of production will be greater, he will himself be richer, and the whole community will be supplied at a diminished cost. Suppose that each occupied twenty acres, and each produced the crop for which he had the greater advantages; the result would be 20×40=800 of wheat, and the same of corn; =800 bushels of wheat and 800 of corn. Suppose again they divided their crops, and each appropriated ten acres to wheat and ten to corn; the result would be 10×40=400 of wheat, and 10×20=200 of corn; and 10×40=400 of corn, and 10×20=200 of wheat; that is, 600 of wheat and 600 of corn; that is, there would be 600 instead of 800 bushels of each raised, and the loss to both and to the community would be 200 bushels of each a year. By so much would they both be poorer than by devoting themselves wholly to that product for which each had the greatest natural advantages.

Or, to take another case. Suppose one district rich in soil and adapted to the production of wheat, but *level and far inland,* and therefore *unadapted* by position and want of the proper natural agents, *to the production of manufactures;* and another district *on the sea-board* hilly and sterile, *adapted to manufactures* but unadapted to the culture of wheat. On the first, with one day's labor, a man may raise two bushels of wheat, but could produce but four yards of cloth. On the other, by the same labor, a man can produce twelve yards of cloth, but can raise only one bushel of wheat. Now it is manifest that by each district's devoting its labor to that kind of production for which it has the greatest natural facilities, the production of the whole country will be increased. It is also evident that a man in the wheat district will provide himself with cloth at a cheaper rate by raising wheat and procuring cloth by exchange, than by manufacturing it himself; and on the other hand, that the manufacturer will provide himself with wheat at a much cheaper rate by making cloth, than by raising wheat himself. Thus by this form of division of labor, the productive power of both is increased; their desires are gratified at the expense of less labor; and thus both are rendered richer and happier.

All this seems obvious, if only the several districts of the same country be compared. And it is obvious, because every one perceives that God has bestowed upon different districts of the same country different advantages, which it is for the interest of that country that each district should improve to the utmost. But every one may see that the same principles apply *to different nations inhabiting the different quarters of the globe.* The separation of the earth into warring nations, is nothing but the arbitrary work of man; it alters neither the qualities nor the relations which God has given to things, nor the laws under which he has constituted man. If a man own a farm of which one part is suited only to tillage, and another part only to grazing, and he divide it and sell the pasture land to his neighbor; this does not alter the nature of the soil. Will it not be just as profitable to appropriate each part to the purpose for which God designed it, after the purchase as before?

Every man needs, for the gratification of his innocent desires, nay, for his conveniences and even necessaries, *the productions of every part of the globe.* To be convinced of this, we have only to enumerate the articles which furnish our houses, the food that covers our tables, and the raiment which clothes our bodies. How greatly would all our means of happiness be diminished, were we deprived of the iron, the furs, and the hemp of the North ; the coffee, teas, sugar, rice, fruits, and spices of the South ; or the wool, the wheat and the manufactures of temperate climates. Every one must be convinced that the happiness of every man is increased in proportion as he is furnished with the greatest number of these objects of desire ; and furnished with them in their greatest perfection and at the cheapest rate.

But it is evidently the will of our Creator, that but few of these objects, every one of which is necessary to the happiness of every individual, should be produced except in particular districts. Others, if they can be produced in several places, can be produced much more cheaply, and in greater perfection in some places than in others. *Every part of the globe possesses peculiar advantages for the production of something ;* but no part possesses advantages for the production of every thing. Hence we see on the principle illustrated above, that *the annual production of the globe will be greatest ;* that is, there will be the largest amount falling annually to the share of every individual ; that is, every individual will be richer and happier, *when each portion of the globe devotes itself to the creation of those products for which it has the greatest natural facilities.* If a man in New York can produce by one day's labor, one hundred pounds of flour, but could not produce more than one ounce of coffee ; and a man in Cuba can produce twenty-five pounds of coffee, but cannot produce more than one pound of flour, and they exchange as we have before seen they must exchange, labor for labor; the one will produce by a day's labor twenty-five pounds of coffee instead of an ounce; and the other one hundred pounds of flour instead of a pound. Is not this better than for the New York farmer to raise his coffee in a hot-house, at the expense of a day's labor for an ounce; and the West Indian to raise his wheat on the mountains, at the expense of a day's labor for a pound? *Such are the advantages of that division of labor suggested by Geographical Position.*

And *the Final Cause* of all this is evident. God intended that men should live together in friendship and harmony. By thus multiplying indefinitely their wants, and creating only in particular localities the objects by which those wants can be supplied, he intended to make them all necessary to each other, and thus to render it no less the interest than the duty of every one, to live in amity with all the rest.

Nor is the application of this principle confined to geographical localities. The simple fact that a nation possesses facilities, be they either natural or acquired, for creating any product at a cheaper rate than any other nation, is a reason why that nation should devote itself to the creation of that product; and why another nation should for the same reason improve its own peculiar advantages. Thus, there are certain states of society, and a certain amount of accumulation of capital, most favorable to the creation of certain products. A nation in this State and with this accumulation, can furnish these products cheaper than her neighbors; and this is a reason why they should purchase them of her. Could not one of our old States supply one of the new States with manufactures, cheaper than the new State could produce them herself? And is this not a reason why the new State should procure them by exchange rather than by direct production? Is it not cheaper for an Indian to buy a rifle of an European than to attempt to make one for himself?

This is however by no means to assert that such arrangements and relations are to be *permanent*. As a country accumulates fixed capital, it creates its own facilities for creating almost every kind of manufactured product. One nation will naturally begin to do this at the same point of accumulation at which another began to do it. And the way in which to arrive at this point the soonest, is *to become rich as fast as possible;* that is, to buy as cheap as we can, or in other words to procure annually as many objects of desire as possible, for a given amount of labor. A tribe of Indians would much sooner be able to make rifles for itself, by purchasing at first rifles of an European, than by determining that it would never use rifles until it could manufacture them for itself. As the use of a rifle would render industry more productive, and thus render the tribe richer, it would bring them one step nearer to that degree of accumulation at which they might begin to make rifles for themselves. But the resolution not to purchase of others would have no such tendency, inasmuch as it would do nothing whatever toward accumulating production; but would on the contrary, shut them out from the very means offered them for most rapidly benefiting their condition.

To sum up what has been said. It will be seen that production will be increased; that is, men will be richer and therefore may be happier, as the following conditions are complied with:

1. As the laws of nature, designed by our Creator for our benefit, are understood;

2. As the means are devised for availing ourselves, in the most successful manner, of the utility of these laws;

3. As the human labor necessary to be expended is so

arranged as, with a given expenditure, to produce the greatest and most perfect result; and

4. As the inhabitants of the earth in different localities, devote themselves most exclusively to the production of those objects of desire, for the production of which they have received, either directly or indirectly, from their Creator, the greatest facilities.

Or, still more generally, production will be abundant; that is, man will enjoy the means of physical happiness in proportion to his individual industry, both of body and mind; and to the degree of harmony and good feeling which exists between the individuals of the same society; and also between the different societies themselves.

CHAPTER VIII.

CAPITAL.

Its Definition.—*Capital is that part of Wealth which is employed in Production.* The word is often used vaguely and with diverse meanings. We need to adhere to a strict definition. The generic idea is, as stated, wealth set apart to be consumed in the *reproduction* of wealth. The technical use of the term always has reference to Production.

All capital is wealth, but all wealth is not capital. Suppose a farmer's crop this year gives him a hundred bushels of wheat to spare. He may exchange this surplus for gold, and bury the gold for safe-keeping. That gold is wealth, but it is not capital; for while buried it can contribute nothing to the further production of wealth. He may exchange his wheat for a beautiful painting to adorn his home. The picture is still wealth, but, hanging on the wall, it will do nothing to increase the next year's crop—it is not capital. He may exchange his surplus of wheat for a horse, or for labor in clearing and draining another field. Now the wheat is gone and the money is gone, but the wealth is still his, in the horse or in the improved land, turned into means for the production of a larger crop next year; that is, he has turned this part of his wealth into *Capital.*

Capital is not synonymous with Money, as too many suppose. The money for which the farmer sold his wheat, while simply hoarded, is wholly withdrawn from production, and though he may think himself rich in its possession, it is not capital for him or anybody else. If he holds it as a fund for the payment of laborers' wages and the purchase of implements next year, it is *prospective* capital and may be all that will be required for these purposes; but as money, it cannot itself assist his production. What he wants is what the money will buy, and in any view, it constitutes but a small part of his real capital. His land, his buildings, his live-stock and his tools, make up the bulk of his capital. So money in circulation as an instrument of exchange, performs an important function in the productive industry of a country, as will hereafter be shown. But in the case of an individual, or a joint-stock company, in a community or a nation, though the whole capital is estimated in terms of money, the money in hand amounts to very little in proportion to the capital, in other forms, actually in use.

The Origin of Capital.—*Capital is always the fruit of past labor, saved.* A farmer's boy once received as a reward for a bit of work, the gift of an ewe-lamb. It was the first thing he ever earned. He might have sold the lamb to a butcher and spent the avails for his immediate gratification. Instead of that, he kept his lamb and cared for her and her young. The clip of wool and the natural increase from year to year, were saved in like manner, till he came into possession of a valuable flock. In due time he sold the flock, and with the avails commenced business as a merchant. Maintaining still the habit of his youth, he labored diligently, and saving the profits, steadily added to his capital, till he stood in the foremost rank of the merchant princes of New York, using a vast capital to combine the industries of two continents. The lamb, the first fruit of his labor, *saved,* was the beginning of his capital—the nucleus of his subsequent fortune.

Such is universally the origin and the growth of capital. It begins in saving and grows by the continued exercise of *industry and frugality.* Labor produces wealth. That portion of wealth which is saved from consumption for immediate gratification and appropriated to increase future products, is capital. The term can properly be applied to nothing else.

Even the savage will spend some labor in making a bow and arrows that he may obtain larger returns from hunting. But he accumulates little or no capital beyond this, simply because he is *indolent, thriftless and self-indulgent.* He will work only when the necessity of the hour compels him to do so. He consumes the fruit of his labor at once, on present gratification, reckless of future needs. His first step toward civilization is to learn *forethought and self-denial*—a hard lesson always with most civilized men, as well as with savages. The hardest thing about it is to make a beginning. The first step taken, there is a joy in conscious possession and a hope of accumulating more which give zest to further effort till the exercise grows into a habit and sometimes into a morbid passion. To provide facilities for guarding and utilizing the smallest savings and to encourage all to exercise self-restraint and forethought with reference to a future good, are important means for increasing capital and enlarging the production of wealth.

But we need to emphasize this principle in one aspect of it. Many are disposed to think of *Labor and Capital* as things quite diverse in their nature and necessarily *antagonistical* in their respective interests. But as we see, the truth is that capital is nothing but *past labor embodied and reserved for present labor to work with.* They are indispensable to each other, and in the processes of production must always combine for a common end. Whatever injures either works a common damage—whatever increases the efficiency of either works a common benefit. When the representatives of these two natural partners in production are arrayed against each other, there must be something radically false and wrong in prevalent popular sentiment, or in the social organization.

Forms of Capital.—The products of previous labor appear as capital in four distinct forms.

1. In the form of *Materials to which present labor is to be applied.* The farmer must have seed, manure, breeding animals, etc., which by labor must be put into fit conditions for the processes of *Transmutation* to produce increase. The manufacturer must have lumber, cotton, iron, wool, leather, etc., which labor shall *Transform* into articles adapted to men's comfort and gratification. The merchant's materials are the goods which make up his stock, by *Transportation* to be brought, with increased value, within convenient reach of those who desire them. Obviously, all these things are the products of former labor, on which present labor works to increase value and swell the sum of wealth.

2. *Capital takes the form of Implements and Machinery by which present labor is made effective.* A man's hands and limbs and muscles alone can do little or nothing with the materials just named. The farmer must have ploughs and carts, divers tools, machines, working animals, etc. In this category also must be included *the land,* which is his great instrument of production. The mechanic must have axes, ploughs, hammers, a full chest of tools, and the manufacturer, engines to create momentum and ingenious and complicated machines for directing it in adjustment to the materials employed and the articles to be produced. To this division belong also the teamster's wagon, the merchant's ship, the entire structure and rolling-stock of the railway company, and whatever facilitates the transporta-

tion of goods, their exhibition for sale and the financial negotiations of every sort incident to the transfer of commodities from producers to consumers. All these are the products of past labor, infinitely varied. As the introduction of natural agents and division of labor to increase productiveness is extended, the amount of capital employed in this form is increased, and production in almost all departments is thrown into large establishments. The power-loom makes one man's labor equal to that of ten with the old hand-loom, and hence the independent weaver has no chance in competition with the great factory.

3. *Capital takes the form of Means of Sustenance for laborers.* Present labor does not yield immediately the food and clothing necessary to keep the laborer alive. The crops of last year must provide for the support of the farmer and his help, while this year's crops are maturing. Out of the proceeds of previous industry, both the manufacturer and the merchant must furnish present means of living for all in their employ. Under this head must be embraced therefore, the houses and all the various kinds of clothing and food necessary to protect and sustain men while at work, and to provide for the comfort of their families. We can suppose an establishment, set up complete in itself, so that tenements and rations of food and clothing are directly supplied to those who carry on its operations. But ordinarily these items are provided for in detail by the laborers themselves out of their *wages.* Nevertheless, the fund for the payment of wages is an essential part of the capital and comes always from the proceeds of previous labor. If, as is often the case, by the use of credit, the product of present labor is anticipated for these purposes, the fact is still the same. What is actually consumed to sustain the workmen is the fruit of previous labor borrowed for the time.

4. For a longer or shorter period, as the process of pro-

duction goes on, more or less of *Capital takes the form of Finished Products,* waiting for a market. The process of production is not completed till the products pass out of the producer's hands. Commonly, the farmer will find it for his convenience or advantage not to dispose of his crop as soon as it is gathered. While he holds it back from sale, it is capital in his hands, just as truly as his barns and tools are. Sometimes business is so active that a manufacturer's orders will be in advance of his production, but oftener he must hold a portion of his products waiting orders. It would be bad economy to suspend operations and keep both labor and capital, in other forms, idle till a purchaser appears, when there is a tolerable certainty that the product will in due time find a market. Therefore, in estimating the amount of capital required to carry on any line of productive industry, some allowance must be made for the value of the products which must thus be carried for a time.

In some or all of these four forms, all actual capital exists ; and in civilized society, no kind of production can go on without something in these forms as capital. Even the wood-chopper must have his axe, the clothes he wears and something to eat for the day, all the fruit of previous labor, before he can go forth to his simple work. The blacksmith who works alone, capitalist and laborer, both in one, must have some iron for material, forge and anvil, hammer and tongs for instruments, a home for his shelter, bread and meat for food, and a few finished horse-shoes hanging in his window ready for the first call. So likewise, the millions of capital invested in the great Pacific mills of Lawrence may be all resolved into these four forms, or temporarily, in small part, their money-representative.

Banking capital will be considered at length in another connection. Since much of it is directly concerned in production, however, it may relieve a question arising in some mind, to say a few words concerning it here. A bank is simply a *credit-agency.* When a manufacturer is out of cotton, or wants a new engine, or lacks means for the sustenance of his employés, he might borrow what he needs directly of the cotton-broker, or of the machinist or of the farmer, but it is often more convenient to borrow money of the bank and with it purchase those things. But the money is exchanged at once for the things wanted, and so its value really goes into production in one or other of the forms named. Then the note left at the bank means that so much of the capital as is thus borrowed, belongs not to the manufacturer but to the banking company. So far as the capital of the bank is represented by such notes, it is employed in production in the forms mentioned; and the bank as a credit-agency simply effects a partnership of different persons for producing certain articles. The act of borrowing and lending has added nothing to the sum total of capital. It has only served to distribute existing capital for profitable use. Banks, therefore, are store-houses for the safe keeping and ready distribution of money, the instrument of exchange. Their capital renders an important service to productive industry through its entire range, and really comprises the greater part of the active productive capital of a community which exists in the form of *money.* Yet as money, it is a simple *instrument,* and belongs to our second division, just as a wagon or a plough does.

The Consumption of Capital.—According to our definition, capital is wealth set apart to be destroyed for the production of more wealth. "*Except a corn of wheat fall into the ground and die, it abideth alone, but if it die, it bringeth forth much fruit.*" So, the great teacher, Jesus, stated a fundamental principle of Political Economy. Labor applied to capital destroys value of one kind, in order to bring forth a superior value of another kind. In the process of production, this change passes upon capital in each of its forms. The materials are immediately consumed. The seed-corn dies and the cotton is destroyed as cotton-wool, when it enters into the fabric of cloth. By use, the instruments slowly but surely wear away and go to decay. Food is rapidly consumed, clothing more gradually, and more slowly still, the house which gives shelter; but on all. the changes are in one direction, toward destruction. The finished product too, is disposed of to others and so is lost to the producer, to appear again in new materials, new implements, new means of subsistence and new products.

Thus, under the application of labor, capital is undergoing perpetual changes which involve the destruction of value. But these changes are guided by the purpose, through that destruction, to bring forth products of greater value. If the labor be skillfully directed, the product will have a value sufficient to replace the capital, that is, all the materials destroyed, the implements worn out and the means of sustenance consumed, with a surplus, which is *profit*. This profit is measured always by the difference between the value consumed and the value produced. It is obvious, that it matters not in what *form* capital re-appears, if it only re-appear in a form bearing a greater value. The smith exchanges gold or silver for coal; he burns up his coal, and nothing is left but ashes. But it has produced an invisible substance, called caloric, by means of which he has been able to give such an increased value to iron, as will not only replace his gold and silver but also the iron itself, and will also pay him for his labor. The farmer exchanges his gold or silver for manure, but this manure will so increase his harvest, that he will be able to replace his gold and silver, and also be abundantly repaid for his labor. **The principle is the same in all cases** of change of capital. It matters not into what we change our capital, nor how valuable the substance may be that is exchanged, if we only receive in return a greater amount of value, or that which will procure for us a greater amount of objects of desire.

We see hence in what manner nations and individuals grow rich. It is by uniting the industry of this year to the capital of last year, and by this process creating an augmentation of capital. This augmentation will be either greater or less, in proportion as our industry has been successful in giving additional value to that value which previously existed. If we destroy a value and produce another only equal to it, we lose our *labor*. If we destroy a value and reproduce nothing, we lose both *labor and capital*. It is only as the value created is superior to the value of labor and capital consumed, that we are enriched. Hence we see that the rule of economy in the use of capital is to consume as little as possible for a given result, and out of a given consumption to bring the largest possible product. The ever recurring problem is *how to consume less and to produce more.*

Productive and Unproductive Capital.—Careful adherence to our definition, in great measure does away with this distinction which many writers make prominent. By our definition, capital is meant to be *always productive,* and wealth *unproductive* is *not capital.* But occasionally, through mistaken application, capital is involved in unprofitable investment, as in experimental machinery found unsuitable for its purpose, or in the grading of a line of railway, afterward abandoned. A financial revulsion may compel the suspension of business so that great factories must stand idle, or it may produce a stagnation of trade, such that large stocks of goods must be held for many months unsalable. A great railway, after large outlays for its construction, may have business enough barely to meet its running expenses and repairs, yielding no returns for the capital. In these cases, it may be said that for the time *capital is unproductive.* But as soon as it appears clearly that the investment is unprofitable, so much of the capital as can be saved, will be withdrawn and applied to some other mode of production. The rest must be set down as lost and is no longer capital.

Many persons who have been induced to furnish means for constructing a railway to run near their property, thus becoming stockholders in the company, have lost the capital thus invested, so far as dividends are concerned; perhaps the entire railway property has passed into the hands of bondholders, beyond recall. Yet they may have been fully compensated by the increased facilities for business, and the enhanced value of their property which the road has secured. In this case, their stock-investment is unproductive, utterly lost perhaps, yet the capital put in is still there, *productive*, as it favors every branch of industry in the community, their own with the rest. The greater hardship falls on those who have put their means into the stock without a chance to share in the benefit of the improvement. To them their capital is simply lost, though it is still aiding the general production of the country.

While capital is unproductive, it may be considered as losing annually its ordinary rate of *interest.* Hence every wise economist desires to have the whole of his capital productively invested. Thus the thrifty farmer will spread his manure on his fields, instead of leaving it to waste in his farm-yard. The efficient merchant will keep his ships moving and push his goods off his hands as fast as possible. And the enterprising manufacturer will be careful not to extend his machinery beyond his ability to keep it running. Sound economy prompts every one to unite everything which he can turn into capital, with labor, and to keep it so united continually.

Fixed and Circulating Capital.—Our statement of the forms of capital simplifies this distinction. Mr. Mill presents this distinction substantially thus. *Circulating* capital fulfills its office in production, by *a single use,* and brings its returns *at once. Fixed capital* takes a *permanent form,* and fulfills its function in production by *many repetitions* of its use, and gathers its returns in *quotas spread over a period of time.* Under this view, it is evident that our second form of capital, viz., implements and machinery, embraces almost everything which is properly called fixed capital. We need to add only so much of the third form as is put into permanent dwellings. All the other forms are circulating capital. Thus, materials are consumed at once, and cannot again render the same service, as, when leather is transformed into shoes, it is destroyed as leather, though its value in the shoe is much enhanced. So, too, the portion of capital devoted to the subsistence of laborers, represented generally by wages is consumed when paid over to the laborers. Its service cannot be repeated. The wages paid weekly to the hands in a cotton-mill no longer exists as the capital of the company, though its value reappears in the health and vigor of the workmen, and with some, in that which they may *save* as capital to be used for other purposes. In like manner, capital in the form of goods or finished products, fulfills its function for the manufacturer as soon as they find a purchaser, though the avails may be applied to replace materials, wages or the wear of machinery in the same establishment. All this therefore is called *circulating capital,* though the name is not altogether appropriate. On the other hand, the buildings, the machinery, the tools, the land and whatever is put into its permanent improvement, ships and railways are fixed and durable and over and over again for years, it may be for a lifetime, repeat their service, subject only to gradual decay or occasional breakage.

Economical production requires that the single use of circulating capital shall reproduce a value equal to that of the original expenditure, with something added for profit. Fixed capital answers its purpose, if during the whole period of its repeated use, it brings in enough to pay for itself and needed repairs and a profit equal to ordinary interest on its entire value.

The *line* of distinction between circulating and fixed capital *cannot be drawn absolutely by naming commodities on either side.* A plough regarded as a finished product held by the manufacturer, or as a part of the stock of a dealer in agricultural implements, belongs to *circulating* capital. But as soon as it is taken home for the farmer's use, it becomes a part of his *fixed* capital. Just so it is with a turbine wheel or a steam-engine. We class either with circulating capital while in the hands of the machinist, finished, but not sold; with fixed capital, as soon as transferred to the place of service for which it was intended in the mill.

As production increases wealth, the tendency is always *to put more and more of the accumulating wealth into forms of fixed capital.* Men wish to use the surplus of value gained this year in some way to bring them a larger surplus next year. Thus a profitable establishment naturally expands itself. If ten thousand dollars, invested in building and machinery has yielded a profit of two thousand—the introduction of additional machinery, costing it may be, only two thousand five hundred dollars, may double the product and the profit. So it is in the unfolding industry of a new country or a young community. At first the amount of capital is necessarily small. But as every year's production gives a surplus, more or less of that surplus will be put into machinery for increased production. Thus in its steady increase, capital naturally seeks out new methods of employment in divers manufactures, and the manufacturing interest grows as a tree grows. The surplus of wealth produced, spontaneously seeks investment as fixed capital. In their proper and natural time, therefore, manufactures *must be* established, and as that time arrives, they *will be* established without the aid of legislative enactment, and according to the very laws by which accumulation is governed.

This tendency to the increase of fixed capital, works, for the most part, healthily and advantageously for both a particular industry, and for the general industry of the whole public. But there are two dangers attending it.

1. There is danger of *over-production* of certain commodities. If a paper-mill has produced fifty thousand dollars-worth of paper, and earned a handsome profit, it is very natural to suppose that doubling the product will double the profit, especially if it is found that a comparatively small addition to the machinery will so increase the production. But the market may not demand this enlarged supply, or it may be that a dozen paper-manufacturers will be thinking and doing the same thing at once, and what would have been advantageous to one, proves disastrous to all.

2. There is danger also, of *a too sudden and rapid absorption of available means in fixed capital.* A due proportion, not exactly definable, must always be maintained between fixed and circulating capital. If a manufacturing company adds largely to its fixtures, there must be a corresponding increase of its working capital, or embarrassment and perhaps failure will follow. The same thing is true of the general operations of a community. It happens not infrequently, that a period of prosperous industry unduly stimulates the manufacturing interest, or the ship-

ping interest or the railway interest, so that before men are aware, a large portion of the capital of a country is locked up in instruments for increased production, leaving quite insufficient means for carrying on the enlarged operations. Thus, a few years ago, all England was convulsed by a financial crisis, caused in a great degree by a sudden and very rapid absorption of capital in railways, which while they might ultimately favor the productiveness of all industry, could bring in their returns only after a lapse of time. This mischief is always aggravated by any inflation of the currency, or increase of that which passes for money. In this connection, therefore, it is to be observed that

Money, though circulating more freely than any thing else, must really be classed as fixed capital. In the business operations of an individual or an incorporated company, some money is essential. There, it ordinarily represents circulating capital in *transition*, as when the manufacturer has sold his products and holds the money received, waiting for his next purchases of materials or his next payment of wages. But, viewed in its true nature, with respect to its broad, general function, money is but an *instrument* of exchange—an instrument, when genuine, made of gold or silver, to serve a certain end in the operations of industry, just as an anvil is made of iron for its specific purpose. The gold might have been transformed into a watch-case or a finger-ring, for the gratification of desire. Instead of that, it is turned into coin and so set apart to serve the production of wealth by a thousand repetitions of its function as an instrument of trade. The same coin, say an eagle, may go out of the bank in the morning, run around a busy circuit and get back in the afternoon. The manufacturer, for example, draws it from the bank and pays his laborer ten dollars of wages—he transfers the same money to the farmer for a load of potatoes—the farmer passes it to the plough-maker for a plough—he in turn pays to to the hardware merchant for iron, and the merchant deposits it again in the bank. During the day, it has represented four kinds of circulating capital, carrying each to its appropriate place, but it comes back to the bank, just what it went out, money, the same thing unchanged. It has rendered important service in production, but its service is like that of a wheel-barrow, which has transferred to different parties four different loads. The money could not do the work of the laborer, the laborer could not eat it, the farmer could not plough with it, the plough-maker could not work it into a plough, and the merchant could not store it with his goods. But it has brought to each just what he needed, and there it still is, in its proper depository, ready to repeat like services to-morrow. We see then that real money is a part of the products of former labor, saved and set apart for this service. It is capital in the form of a permanent instrument to aid production, hence *fixed* capital. It is subject to slow wear which must be replaced by gold or silver from the mines, a part of the circulating capital of the country.

Hence, as any country may have a greater amount of fixed capital than it needs, for instance, of some particular kind of machinery ; and as, when this is the case, it sends it abroad, or in other words, makes it an article of export, or changes it into circulating capital, so is it with money. If a country has more money than is sufficient to accomplish its exchanges, it sends it abroad, and receives back something that it needs more. Such is, permanently, the case in mining countries ; and such is at times, the condition of almost every commercial nation.

CHAPTER IX.

CO-OPERATION OF LABOR AND CAPITAL.

The true relation of Labor and Capital is that of Partners, Co-adjutors *for a common end*,—**Sharers** *in a joint result.* This is evident from what has been said of the nature and function of each, considered separately. In the production of wealth, each is necessary to the other; each is helpless without the other. Antagonism between the representatives of these two essentials to the increase of wealth is unnatural and ruinous to the interests of both. The most stalwart and vigorous man can effect nothing without the fruit of previous labor, that is capital, in the form of food and clothing, materials and tools. With nothing to live on and nothing to work with, he can but pine away and die. On the other hand, warehouses full of cotton, factories filled with ingenious machinery, stores stocked with goods,—capital in whatever form, accumulated to whatever extent, can do nothing to increase itself. Let alone, it can only rot or rust and go to decay. Productive industry begins with the hands of labor laying hold of the materials, guiding the machinery, transporting the goods, and so working changes which impart new utilities, or increase existing value.

This general fact is recognized in many common forms of speech. Thus when industry is directed to a particular employment, the act is spoken of as *applying capital* to the employment. When land is improved, capital is applied to farming. When a factory is set up, capital is invested in manufactures. In all such cases, *labor* is the thing really applied, but the phrase is very naturally used, because it is understood that capital is an indispensable condition of the proposed industry. So we often meet with the expression "*the productive powers of capital.*" This is not strictly correct, for capital has in itself no power at all. Really the only productive powers are labor and the natural agents which labor directs. Yet the expression does not mislead men, because the very term capital carries with it the idea of its correlative and supposes labor joined with it to make it productive. The common sense of men, indicated by their current forms of language, is altogether sound on this matter. It most fully recognizes labor and capital as *the two necessary and inseparable factors* in the production of wealth. It is pitiable to see how often minds are sophisticated by some sort of false philosophy so as to lose their *common sense* with respect to these things. Here, as elsewhere generally, plain common sense is but another name for the universal, intuitive perception and acceptance of the first principles of sound philosophy. Such a truth is this of *the essential equality and necessary harmonious union of labor and capital in all productive industry.*

Abstractly considered, labor and capital stand toward each other on an *Equality.* If there is any difference, capital is the more helpless of the two. For it is nothing but dead matter, whereas labor is a vital force which can move itself and pick berries and possibly run down a rabbit or catch a bird by bare human hands and feet. Disregarding this difference, we may say that as factors of production, they are equal.

For their Co-operation, *these elements meet most harmoniously in the same person,*—that is, *when the laborer owns capital enough to employ his own labor.* This brings both elements under the control of one and the same will, to be governed by one *self-interest.* All rivalry and antagonism are excluded, and according to the measure of his capital and his physical and mental capacity, the man will multiply products.

But for several reasons, this adjustment cannot be made universal.

1. Such is *the tendency of capital to increase* under the steady application of labor, that the man will soon find in his hands a surplus, to employ which, he must either bring in another who has only labor, to work under him, or lend it, as capital to another independent worker. Thus a distinction between laborer and capitalist is sure to arise. The only alternatives are either to store away the surplus as *hoarded wealth,*—not capital,—or to consume it in a more *luxurious style of living, or to diminish the amount of labor,* so as to avoid the increase of capital, all of which are against the dictates of sound economy.

2. A greater difficulty comes from *the great diversity of capacities and tastes* among men. Some who are strong for physical labor, lack managing skill and tact in saving, and so are unable to accumulate and employ capital, acting independently. Others, peculiarly endowed in these respects, are feeble in body and unfit for manual toil. To many, labor is peculiarly irksome and they will seek exemption from it, as soon as their increased capital enables them to do so. To others the care of managing business is no less distasteful, and they choose to labor on, passing their accumulating capital into other hands.

3. Many forms of production of highest consequence in civilized society, *must be carried on in large establishments,* where are combined a great amount of capital and great numbers and divers grades of laborers. In no other way can the full advantage from the use of natural agents and the application of the principle of division of labor be

realized. As active invention multiplies labor-saving machinery, many of the common articles formerly made by hand, by members of the household, have now to be produced on a large scale, involving a company of capitalists who employ a company of laborers.

These causes tend to separate the two elements, so that capital falls to some and labor to others. The abstract equality and mutual dependence just spoken of is thus disturbed. As the parties meet to enter into contract with each other, the capitalist has the advantage, because *he can live* on his capital without labor, but the laborer must earn the necessities of life by working with somebody's capital. Under the sway of short-sighted self-interest, capitalists are tempted to use this advantage to dictate terms and oppress laborers. We say *short-sighted* self-interest, for in the long run, and in the broad view, such oppression must react against the oppressors. When laborers are held down to starvation wages, capital must be heavily taxed for the support of paupers, and in time, there will surely come an insurrection to make capital insecure. The consciousness of dependence tends to make laborers sensitive to the least real wrong and suspicious of wrong where none exists. On the other hand, where laborers rally to maintain their rights, capitalists grow distrustful and either withdraw their wealth from production, or burden its use with embarrassing conditions. Against their own true interests on both sides, the parties are thus led to array themselves against each other. The strength of this tendency, and the mischiefs flowing from it, as revealed in England and recently in our country, demand thoughtful consideration. How to guard the rights of both parties so that they shall be bound by their natural common interest, in harmonious union with each other, is an important and difficult problem of political economy. Without attempting here, a full discussion of that problem, we may state certain

Conditions and Circumstances which favor the harmonious Union and effective Co-operation of Labor and Capital.

1. A general Distribution of Capital is a matter of prime importance. By this is meant such a condition of things that the capital of a country shall be in many hands rather than few,—that laborers themselves shall have, or be encouraged to secure some capital. So distributed, capital is most closely joined with labor, and is used most economically. At the same time, labor is stimulated to its highest effectiveness. Very many persons are both capitalists and laborers, in a position to see most clearly the common interests, as requiring mutual good-will and hearty union. They will therefore, be inclined to oppose the drawing of lines to separate these classes, and all influences which tend to produce antagonism between them. Some concentration of capital is, as we have already seen, essential to the most effective division of labor. But beyond this necessity, the great aggregation of capital in the possession of individuals, is disadvantageous because it leads inevitably to despotic assumption on the one hand, and to envyings and jealousies on the other.

Such a general distribution of capital is opposed by anything in the social organization *which creates or sustains privileged classes.* No aristocracy can long be maintained without some provision securing to a class special advantages for the possession and transmission of property. In the history of nations, we find the most common form of such provision to be by restrictions on the division or disposal of lands. Whatever also, in legislation or usage by the easy allowance of public opinion tends to create or maintain *monopolies,* opposes the general distribution of capital. If no hindrances are in the way and no special protection is accorded, the natural working of things on principles of self-interest will promote a general distribution of capital.

This end may be promoted by all *measures which encourage saving*, especially on the part of laborers. *Savings-banks*, established on a sound basis and honestly managed, such as New England has had and has profited by for more than a century, or perhaps better still, a government savings-bank, through a modification of the postal order system, on the plan now in successful operation in England, render valuable service in this matter. Moreover, *the stock of large manufacturing companies* may be divided into small shares and brought within the reach of the operatives, so as to induce them by their savings to become owners in part of the capital, and so to be entitled to dividends in addition to their wages. Such measures elevate labor and give it independence, and also increase capital by devoting much wealth, that would be otherwise wasted, to production. Capital thus distributed stimulates energy, develops talent, comes closer to labor, better defends itself and superintends operations by having in each workman an interested observer of both his own and others' work.

2. The Ratio of the amount of Capital to the number of Laborers and the ratio of the Increase of Capital to the Increase of Laborers must have an important bearing on the co-operation of these two forces. We cannot too often reiterate, nor too strongly emphasize the fundamental principle that *Industry is limited by Capital,* and that every increase of capital demands increase of labor. When the number of laborers is great and the amount of capital small, there will be a competition of laborers for work. This tends at once to reduce the rate of wages and some will fail to obtain employment and others will receive barely enough to avoid starvation.

There is consequently great distress, general discontent, and often violent insurrection which aggravates the whole difficulty.

On the contrary, when the number of laborers is small and the amount of capital great, there will be competition among capitalists for labor, and the wages or price of labor will rise. This may so enhance the cost of products, as to make industry in certain lines of production unprofitable. Hence capital must wait, unemployed, for an inflow of laborers. This difficulty is more easily relieved than the other, because capital invites labor to itself, and a brief time will ordinarily adjust the proportions, so that the two elements will work harmoniously together for their common advantage.

No universal rule can be given for this proportion. It will vary somewhat according to the circumstances of each country and the spirit of its people. The age of a country, its natural advantages and the general occupations of its people must be taken into account. In a newly settled country of great fertility, a vast amount of land is open for cultivation which will yield rich returns for labor expended on it. This of itself may serve as a peculiar stimulus to labor. But this advantage may be balanced by distance from the world's market, and consequent cost of transportation and difficulty of obtaining other objects of desire than the fruits of husbandry. Generally, however, in a new country, occupied by a thrifty people, capital increases faster than labor, and there we see always the highest stimulus to production and the most effective coöperation of labor and capital.

For all countries and for all people, the thing to be desired and aimed at is *that there shall be labor enough to use the capital and capital enough to employ the labor, giving it due reward.* A perfect balance is perhaps nowhere realized. and if once attained it is liable to be disturbed.

Yet, if labor and capital are free, the flow of each, under the law of competition, toward an equilibrium, is as natural as that of the waters of the ocean under the action of gravitation. In the order of nature, undisturbed, there is provision for the steady increase of both capital and labor, in something like a definite proportion. There is no danger of a surplus of either for the whole world, nor for any one country, if only the passage is open and free for the outflow and inflow of both and of their joint products.

In this view, it is evident that the accumulation of capital is *more for the advantage of laborers* than of capitalists. The greater the ratio of capital to labor, the greater will be the share of the product that falls to the laborer. The greater the ratio of labor to capital, the greater will be the share of the product that falls to the capitalist. Hence, the laboring classes are really more interested in the increase of the capital of a country, than the wealthy classes. When one class of the community repine at the prosperity of another class, they repine at their own mercies, and the means of increasing their own rate of compensation.

It is however evident, that the accumulation of capital in any nation does not depend simply upon its annual production, but upon *the proportion that its annual production bears to its annual expenditure.* A country that annually expends all its production, let it produce ever so much, will never increase its capital. A country that produces ever so little, if it annually expend somewhat less than its revenue will be accumulating something; and must in progress of time become richer than its more highly favorèd neighbor. This explains the fact that the countries blessed with the richest soils and the greatest natural advantages, have not generally become the richest. The result has within moderate limits been almost the reverse.

Hence we see that every mode of *unnecessary expenditure*, whether individual or national, by diminishing the annual accumulation of capital, tends directly to lower the rate of wages, and thus injure the condition of the laboring classes. The millions which are wasted and destroyed by *intemperance*, if saved, would add to the capital of a country, and thus increase the demand for labor. All unnecessary expenditure for the maintenance of civil government, has of course, the same tendency. Hence arises also, one of the most afflicting consequences of war. Had the almost incalculable sums which Great Britain has expended in wars for the last hundred years, been added to her operative capital, and but for these wars, it would have been so added, all her inhabitants would have found at all times abundant employment, and at a rate of wages which would by this time, have banished almost the recollection of poverty from her shores.

3. The happy co-operation of labor and capital depends on the certainty that each shall have its just reward.—Nobody questions the right of the laborer to the fruit of his toil. The expectation of enjoying some advantage thereby prompts the exertion of his powers, and the common sense of men affirms that he ought not to be deprived of that advantage. The right of capital to its reward, though questioned by not a few, stands on the same basis of intrinsic justice. Capital is but *the fruit of previous labor saved.* The labor that produced it was like present labor, a cross, endured in expectation of its acquisition as a reward. To that was added the cross of self-denial, by which it was saved instead of being expended on some immediate gratification. On both grounds its owner justly asks that he shall receive some compensation for its use. Since labor can earn nothing without capital to work with, and capital can yield no revenue unless labor be applied to it in actual use, each is entitled to its share of the product of their union. Nothing else so disables industry and hinders the growth of wealth as the selfish greed which would rob either partner of his reward or make it insecure. To ensure to each this certainty of reward, several things are essential.

a. There must be *Division of Property*—personal ownership in everything that can by labor be made an object of value, and appropriated. Without this capital cannot be. On common property, men will not labor except on the compulsion of force or stern necessity. When property is held in common, every individual of the society to which it belongs, has an equal, but an undivided and indetermined right to his portion of the revenue. Hence, every one is at liberty to take what he will and as much as he will, and to labor as much or as little as he pleases. There is therefore, under such an arrangement, no *connection* between *labor* and the *rewards* of labor. There is rather a premium for indolence than for industry. In such a case there will be no regular labor, if indeed there be any labor at all ; and what is still worse, even the scanty and spontaneous productions of the earth will frequently be gathered before they are ripe, since every one fears that, if he do not seize them now, he will never enjoy them at all. The forest of an Indian tribe is held in common and a few hundred families barely subsist upon a territory which, were it divided and tilled, would support a million of civilized men. The little that it produces to him is the result of division of property. His bow and arrows, his wigwam, and his clothing are acknowledged to be, in the fullest sense, *his own.* Were these to be held, like his land in common, the whole race would very soon perish from want of the necessaries of life.

On the contrary, as soon as land with all other property is divided, a motive exists for regular and voluntary labor, inasmuch as the individual knows that he, and not his indolent neighbor, will reap the fruit of his toil. Henceforth he begins to create a regular supply of annual product. With increased skill, this annual product increases, and he begins to convert it into fixed capital. Every accession to his fixed capital renders his labor more productive, and hence it creates a stronger stimulus to increased exertion. With increased exertion, his annual capital is increased, and a greater surplus remains to be changed into fixed capital. Increased production stimulates industry, and increased industry results in more abundant production. Thus division of property, or the appropriation to each of his particular portion of that which God has given to us all, lies at the foundation of all accumulation of wealth, and of all progress in civilization.

It is for this reason that property held in common is so generally prejudicial to the best interests of a society. A common, where every one at will may pasture his cattle, and a forest, from which every inhabitant may procure his fuel, are encouragements to indolence, and serve to keep a community poor. Thus, also, funds left at large for the support of the poor, on which every one is supposed to have an equal right to draw, have generally been found to foster indolence. Poor-laws, in so far as they are to be considered a fund for this purpose, have the same sort of injurious tendency. Societies like those of the Shakers or the German Am-a-na, organized for a sort of common family life with common property, seem to prosper. In reality, however, these are only joint-stock companies, holding and managing property in a peculiar way. Their success, like that of any other corporation, depends on the fact that the principle of division of property prevails all around them and that they are subject to its law. Each member simply merges his individual interest in that of the community and is represented in the corporation,

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which, in the eye of the law, is a personality with distinct property-rights.

b. There must be also Security to all Property-rights by both prevalent moral sentiment and just laws equitably applied and faithfully executed. As no one will labor, unless he knows that he shall reap the fruit of his toil, so no one will take the pains to reap the fruit of his toil, unless he also know that he will be able to hold it, and appropriate it to the purposes of his own gratification. And hence, we see that human labor is exerted in different countries, very much in proportion as the right of property is both understood and enforced.

The right of property may be violated by the *Individual* or by *Society*. It is violated by the *individual* by cheating, stealing, robbery, and violation of contracts. And, universally, just as these crimes prevail, production languishes, industry diminishes, and the richest soil fails to support its few and impoverished inhabitants. Such was the case in Europe, during the era of feudal oppression. There was then no encouragement to labor, because no one knew whether he, or a baronial tyrant, would reap the fruit of his industry.

Hence, we see the economical importance of means which shall prevent the *individual violation* of the right of property. These means are two.

The first is, the inculcation of those *moral and religious principles*, which teach men to respect the rights of others as their own, that is, to obey the law of reciprocity; and which present the strongest conceivable reasons for so doing. This is the *most certain* method of preventing the violation of the right of property, inasmuch as it aims to eradicate those dispositions of mind from which all violation proceeds. It is also the *cheapest*, as it aims at *prevention*, which is always more economical than *cure*. It is also *necessary*, inasmuch as good laws will never be enacted, or if enacted will never be obeyed, only in so far as there exists a moral character in the community sufficiently pure to sustain them. In proportion as these are efficacious, all other means are needless. Hence, we see the reason why moral and religious nations grow wealthy so much more rapidly than vicious and irreligious nations. The feeling of perfect tranquillity and security, which a high social morality diffuses over a whole community, is one of the most beneficial, as well as one of the strongest stimulants to universal industry. This is one of the temporal rewards which God bestows upon social virtue. And, inasmuch as no one can enjoy this reward, simply by being virtuous himself, but only as his fellow-citizens also are virtuous, we see the indication in our constitution, that it is the duty, as well as the interest, of every man, to labor to render other men more virtuous.

But second, inasmuch as all men are not influenced in their conduct by moral and religious principles, it is necessary that aggression be somehow prevented, and violations of property, in so far as possible, redressed. Hence the importance of *wholesome and equitable laws,* of an independent and firm judiciary, and an executive, which shall carry the decisions of law faithfully into effect. The expense necessary for the most perfect administration of justice, is among the most productive of all the expenditures of society. Good law, and the faithful administration of it, is always the cheapest law, and the cheapest administration of it. The interests of man require that law should be invariably executed, and that its sovereignty should, under all circumstances, be inviolably maintained.

But the right of property may be violated by *Society.* It sometimes happens, that society, or government, which is its agent, though it may prevent the infliction of wrong by individuals upon each other, is by no means averse to inflicting wrong or violating the right of individuals itself.

This is done where governments seize upon the property of individuals by mere arbitrary act, a form of tyranny with which all the nations of Europe were, of old, too well acquainted. It is also done by unjust legislation; that is, when legislators, how well soever chosen, enact unjust laws, by which the property of a part or of the whole is unjustly taken away, or what is the same thing, subjected to oppressive taxation.

Of all the destructive agencies which can be brought to bear upon production, by far the most fatal is *public oppression.* It drinks up the spirit of a people, by inflicting wrong through means of an agency which was created for the sole purpose of preventing wrong; and which was intended to be the ultimate and faithful refuge of the friendless. When the antidote to evil becomes the source of evil, what hope for man is left? When society itself sets the example of peculation, what shall prevent the individuals of the society from imitating that example? Hence, public injustice is always the prolific parent of private violence. The result is that capital emigrates, production ceases, and a nation either sinks down in hopeless despondence; or else the people, harassed beyond endurance and believing that their condition cannot be made worse by any change, rush into all the horrors of civil war; the social elements are dissolved; the sword enters every house; the holiest ties which bind men together are severed; and no prophet can predict, at the beginning, what will be the end.

Hence we see the importance to the industry of a country of a constitution which guarantees to the individual immunity not only from private, but also from public oppression. Wherever this immunity is wanting, the progress of a nation in wealth will be slow. It is owing rather to the freedom of her institutions and the equity of her laws, than to her physical advantages, that Great Britain has so far outstripped all other European nations in the accumulation of wealth, and in every thing that confers social power. It is almost superfluous, however, to add, that a free constitution is of no value unless the moral and intellectual character of a people be sufficiently elevated to avail itself of the advantages which it offers. It is merely an *instrument* of good, which will accomplish nothing unless there exist the moral disposition to use it aright.

c. There must be for both capital and labor, *perfect Freedom unrestricted by monopolies or special legislation.* A special favor in these relations of labor and capital involves an infringement of freedom on one side or the other and that is an interference with natural law,—a hinderance to the best results. A man's possessions are his talents, faculties, skill, and the wealth and reputation which these have enabled him to acquire; in other words, his industry and his capital. In order that industry be applied to capital with the greatest energy, it is necessary that every man be at liberty to use his own as he will; that is, that both of them be free.

And first, of *industry.* The aptitudes of men for different employments are very dissimilar. The choice of every man naturally leads him to that employment for which he is best adapted. By allowing every man, therefore, to employ his labor as he chooses, every man will be employed about that for which he is best adapted; and hence, the production of all will be greatly increased, because we thus avail ourselves of the *peculiar* productiveness of every individual. Nor is this all. By allowing every man to labor as he chooses, we very greatly increase the happiness of every individual. And every one knows that a man will labor with better success when his labor is pleasant, than when it is irksome.

The case is the same with respect to *capital.* Every man is more interested in his own success, than any other man can be interested in it. Hence, every man is likely to ascertain more accurately in what manner he can best employ his capital, than any other man can ascertain it for him. If every man, therefore, be allowed to invest his capital as he will, the whole capital of a country will be more profitably invested, than under any other circumstances whatever. And since, when he is left thus at liberty, there will be the greatest gain to the capitalist, there will also be the greatest stimulus to his industry; for the stimulus to labor is always in proportion to the rewards of labor. And, on the contrary, in just so far as, by any means, this productiveness is diminished, the stimulus to labor is also diminished with it.

It may be said that men, if left to themselves, will be liable to invest their capital unwisely. This may be granted. Man is not omniscient and therefore this liability cannot be avoided. The question is how shall it be rendered as small as possible. Will a man who reaps the benefit of success and suffers the evils of failure, be less likely to judge correctly, than he whose faculties are quickened by no such responsibility? Nor is this all. Not only are legislators who generally assume the labor of directing the manner in which labor or capital shall be employed, in no manner peculiarly qualified for this task, they are in many respects, peculiarly disqualified for it. The *individual* is liable to no *peculiar* biases in making up his mind in respect to the profitableness of an investment. If he err, it is because the *indications* deceive him. The *legislator*, besides being liable to err by mistaking the indications, is liable to be misled by party zeal, by political intrigue and by sectional prejudice. What individual would succeed in his business if he allowed himself to be influenced in the manner of conducting it by such considerations? And must not like causes always produce like results?

Besides, every man feels instinctively that he has a *right* to use his capital and his industry as he pleases, provided he interfere not with the rights of another, and that to restrict him in this use is injustice. We have before said, that nothing paralyzes industry like oppression, and it is as true in this case, as in any other. If this sort of interference be violent or frequently repeated, capital and labor, whose motto, like that of Dr. Franklin is, "Where liberty dwells, there is my country," will emigrate to some more congenial social atmosphere. And if the interference be not so intolerable as to produce these results, yet, in just so far as it has any effect, it is all of this kind and by its whole operation must diminish the incitements to industry.

And, on the contrary, just in proportion as every individual is free to employ his industry and capital as he chooses, and thus both to receive a larger compensation for his labor, and also to labor more happily, will be the inducements to industry and to the investment of capital.

Hence, we see the mischievous effect of *Monopolies.* A monopoly is an exclusive right granted to a man, or to a company of men, to employ their labor or capital in some particular manner. Such was the exclusive right granted to the East India Company to import into the ports of Great Britain or her territories the productions of all countries east of the Cape of Good Hope. Such were the privileges granted formerly by Spain to particular individuals or companies, of importing foreign commodities into the ports of her colonies in South America. The result of this exclusion was to prevent all other persons, except those thus favored, from investing their capital in this manner; and hence, to reduce the value of that capital by precisely the amount of this effect. Nor is this all. Those who hold this exclusive privilege, being liable to no competition, may charge for their commodities whatever they choose. Here is therefore, a two-fold injustice; first, the means of the consumer are diminished; and second, the price which he must pay, is enhanced at the mere will of his oppressor.

We see also the impolicy of *obliging an individual, or a class of individuals, to engage in any labor or to make any investment contrary to their wishes.* Thus, we are told that during the French Revolution some individuals were punished capitally for raising cattle instead of wheat. Men may call this *legislation*, but the true name for it is *robbery*. To oblige a man to raise a crop worth fifteen dollars per acre, when he would otherwise have raised one worth twenty dollars per acre, is just the same thing as to let him do as he pleases and then rob him of five dollars an acre afterwards. The wrong is the more intense in the former case, inasmuch as it is done under the semblance of justice, and by men who claim, as the robber does not, that they have the *right* to do it. Such legislation as this will in any country soon produce a famine.

Another form of injury under this class is seen in *the restrictions upon industry,* formerly, if not now existing in many of the countries in Europe, and which certain combinations are now trying to foist upon free Americans. By these regulations artisans were prohibited the exercise of more than one trade; they were not allowed to exercise that trade unless they had served a prescribed apprenticeship; nor unless they joined a particular trade-society and bound themselves to comply with certain restrictions, as, for instance, to sell at particular prices and never to employ beyond a certain number of apprentices. The result of all this oppression is most iniquitous. It reduces the value of skill and industry, the sole estate of the laborer; and places him in the power of those whose interest it is to reduce the supply as much as possible, in order to secure to themselves the most exorbitant profit. In such cases, a large amount of available industry must be kept out of employment, and of course production is to this whole amount, diminished. The tyranny of *trades-unions,* though emanating from the people instead of the government, produces precisely this effect.

The same effect is partially produced by any mode of legislation, by which, in consequence of favor shown to one party, which of course another party must pay for, men are obliged *to exchange* an employment for which they have peculiar facilities, for another which they do not prefer and for which they have not the same facilities. The manner in which this would lessen the stimulus to industry has already been illustrated. Thus, should our government, believing that commerce was more valuable to this country than manufactures, lay a tax sufficient to meet the expenses of the government upon all American manufactures, in order to increase the amount of foreign importation, this would drive manufacturers out of business and oblige them to become merchants and agriculturists. I think that every one must see that this would diminish the stimulus to labor throughout the whole country. Men would not voluntarily engage in manufactures in preference to commerce, unless they found manufactures to be more profitable; and to oblige them to exchange the one for the other, is therefore, to oblige them to leave a more productive for a less productive mode of employment. By all this difference is the country the loser and the incitement to industry diminished.

We also see the impolicy of *laws regulating consumption.* Such are sumptuary laws; or those which limit the degree of expensiveness in our dress, clothing or equipage. These were formerly common in Europe. Such also are laws which forbid or restrict the expenditure of money for the purposes of benevolence, religion, or anything of this sort. Every one must see that one of the incitements to industry, is the pleasure which men expect to derive from expenditure. Now, if this expenditure be innocent, it matters not what sort of expenditure it is. Society has nothing to do with it, and it can in no manner interfere with it without doing injustice and taking away one of the strongest inducements to industry. The only exception to be made here, respects expenditures which involve vices destructive to the individual and disturbing to the peace and order of society.

After centuries of wrong and mischief, the world is opening its eyes to the fact that the business of governments respecting the relations of capital and labor is simply *to protect the rights of each* and to hold other things in even balance for the free working of natural law,—to let both alone, giving neither any advantage, but both the utmost freedom. They are natural partners, and if not interfered with, will spontaneously seek each other as birds mate in the spring for a happy, fruitful union.

4. The General Intellectual and Moral Culture of a people is an important condition of the harmonious coöperation of labor and capital. In every line of industry, intelligence in the laborer adds greatly to his efficiency. Capital too, is more safely entrusted to such as have *mind* as well as *muscle,*—who see the relation of means to ends and *think* while they *work,*—who add to their skill in mechanical processes some knowledge of the nature and laws of the material and forces with which they work.

But with reference to the coöperation now under consideration, it is of the highest importance that both parties as they meet, should be capable of taking broad views of their common interests and mutual dependence. So long as the mass of laborers are ignorant and narrow-minded and thus greatly inferior to capitalists, the distinction of classes is more strongly drawn and there is on one side, some temptation to take advantage of the superior knowledge, in a way to wrong and oppress the weak and dependent; and on the other side, there is a tendency even stronger, in the consciousness of weakness and ignorance, to suspect wrong, to chafe and complain and make unreasonable demands, and to rush madly into violent measures. Harmony between the two requires *mutual respect*, and the basis of this mutual respect is *self-respect* on the part of each, which springs from a clear, intelligent understanding of relations, rights and privileges. Here capitalists as well as laborers need to study first principles. If laborers are to be kept in ignorance and held down, as a lower stratum of society, then, no doubt, the despotism of slavery, the compulsion of force is best adapted to harmony and order in the processes of production. But all history shows that under such a regime, there is little chance for improvement, little stimulus to progress on either side. *Self-interest*, as the main-spring of human exertion, is, as we have seen, a prime element of the science of political economy. It demands *freedom* for every man to make the most of himself, and to do the best for himself. For a wise judgment, choice and action, every man needs the intelligence which comes by education. Sound political economy therefore, prescribes the free, general education of a people by all means which tend to increase and diffuse knowledge, as an essential condition of the most effective union of labor and capital for the production of wealth.

Still more important is the *moral culture* of a people; for on it depends the justice of the laws and the force of public sentiment which sustains them, respect for individual right, security to property and individual and social virtue which alone can make wealth a source of happiness. Intellectual cultivation may exist without promoting rectitude and virtue. In this case, however, its only effect is to stimulate desire, unbalanced by the love of right, until the mad passions of men break down the very structure of society and self-interest reduced to pure *selfishness*, destroys mutual confidence and coöperation, and reigns supreme in anarchy, fatal alike to the production and enjoyment of wealth. On principles of political economy, therefore, we may advocate also, such means of moral culture as the free circulation of the Scriptures and the inculcation of moral and religious truth upon the minds of men, through Sabbath-schools and the preaching of the gospel. They have an important bearing on the productive energies of a country. The argument is very short, but it seems very conclusive. No nation can rapidly accumulate or long enjoy the means of happiness, except as it is pervaded by the love of individual and social right; but the love of individual and social right will never prevail without the practical influence of the motives and sanctions of religion; and these motives and sanctions will never influence men, unless they are, by human effort, brought to bear upon the conscience.

The same principles will defend, on economical grounds, *the efforts of benevolence on behalf of foreign nations.* Intelligence, virtue and equitable laws, will have the same effect upon other men that they have upon us. They will render men industrious, frugal, and consequently rich, and raise them from a savage to a civilized state. Just in proportion as a nation is thus transformed, are its products increased; the riches of the whole world are augmented; the portion of wealth which falls to the share of each man is rendered greater; and the ratio of capital to labor is higher. Just as a nation becomes intelligent and rich, its wants are multiplied, and the means for supplying them are provided. Hence, it becomes a better customer to other nations; it gives an additional impulse to their industry; and it repays them for their products with whatever God has bestowed upon it, which will add to the happiness of others.

Some particular measures for the better harmonizing of capital and labor will come up for consideration hereafter, in another connection. A few general thoughts on the present aspect of the question may fitly conclude what we have to say here. It must be acknowledged that through greater facility for organization, through false views which have gained acceptance in the current usage of business, and through mistaken legislation in some things, *capital has been unduly favored.* It has the advantage, and inclines to oppress labor. Laborers have some reason to complain and ask for relief. Justice and philanthropy require that every man who fears God and loves his fellow-man, should consider the rights involved and lend a helping hand to the weak. But, admitting this, it is obvious from the view presented, that any measures which directly increase jealousy between the parties, any organization which contemplates open war between labor and capital, will only aggravate the evil and work damage to both sides. Combinations of employers on the one hand to rule out fair competition and arbitrarily fix the wages to be paid,—or of laborers on the other, to agree on what they will demand, and in general strikes and trades-unions as ordinarily conducted, are in this light positively mischievous. The great interests of both are *common* and the true relief must come from a better understanding and a controlling regard for these common interests.

On the other hand all measures which tend to increase the intelligence and promote the thrift and independence of laborers and so to inspire them with self-respect and confidence as they come into contact and union with capitalists, are helpful. *Coöperative associations* which gather up the scattered capital of many laborers to be used in the employment of their own industry, and those which are designed to favor economical expenditures for the means of living and to promote social culture and enjoyment, may fitly be commended and encouraged. If capital has gained an advantage by special legislation, this is to be counterbalanced, not by special legislation to favor the other side, by attempts to fix the hours and wages of labor, but by earnest united protests against all special legislation—by insisting on freedom as the fundamental law of productive industry. *Freedom to work and honest pay for honest work well done* is the universal maxim of wisdom for genuine thrift. The mischief is that thousands are studying and struggling all the time, to thrive by the opposite course, reaching on the one hand after the fruit of honest work without rendering honest pay, and on the other, reaching after dishonest pay for dishonest work. The grand correction for this condition of things, is to be found in a more sacred regard on all hands to that great command uttered by Jehovah at Sinai a few thousand years ago, "THOU SHALT NOT STEAL."

The discussion of the bearing of *Protective Duties* on Production will be deferred, until we have presented the laws of Exchange, with which the principle of such duties is also most closely concerned.

CHAPTER X.

SECOND DIVISION.—CONSUMPTION.

The Nature of Consumption.—All the processes of Political Economy contemplate *actual gratifications* as the ultimate end. This end can be attained only by consuming the results of production. This is the legitimate *Use* of wealth. Consumption is thus the counterpart of Production. In its widest signification it is *the Destruction of Value.* By this is not meant the annihilation of the *material,* but only of a *particular form of utility,* the prime element of value. Thus, if gunpowder be burned, if bread be eaten, if a tree be felled, the *particular utility* which each originally possessed, is destroyed forever. And this destruction of value takes place, altogether independently of the result which may in different cases ensue, because that destruction is as truly effected in one case as in another. A load of wood, once burned, as truly loses its utility, that is, its power of creating heat, when it is destroyed in a conflagration, as when it is consumed under a steam boiler, or in a fire place, though the result in the two cases may be very dissimilar. If bread be thrown into the sea, its utility is destroyed, just as much as if it were eaten, though in the one case there is no result from the consumption, and in the other, it is the means of creating the vigor necessary to labor.

Hence consumption, viewed simply by itself, may be considered in the nature of a misfortune. It is the destruction of so much wealth as is consumed. A man, if he had his choice, would rather create one product without destroying another, or enjoy a gratification, if it were possible, without rendering the thing enjoyed useless. But, inasmuch as it is the law of our Creator that we shall obtain our possessions, and gratify our desires, on no other conditions than that of the destruction of value, we have no choice. We cannot cut up a hide of leather for the purpose of making shoes, without destroying forever its utility as a hide of leather. We cannot cut down a tree, and saw it into boards without destroying forever its utility as a tree. We cannot enjoy the pleasure of eating an orange, without destroying forever the power in that orange of affording to any one else the same pleasure. And thus, in general, consumption is one part of an exchange, in which we surrender a value with the hope of securing a gratification or of obtaining another value. Whether the hope be realized or not, the value consumed is surrendered, and surrendered forever.

When, however, it is said, that the *utility* consumed is destroyed forever, we mean only to speak of *this particular* utility. There may yet remain some valuable quality which has not yet been affected. Thus, if a linen garment be worn out, its utility as a *linen garment* is destroyed forever. It may, however, still possess an important utility, as a material for the manufacture of lint or of paper. Wood may be consumed for fuel and its utility *as fuel* may be destroyed forever. A quantity of ashes however remains, which possesses utility for the manufacture of soap. Hence we see the importance, in all cases, of entirely exhausting *all* the values contained in any product before we surrender it up as worthless. For the want of this care, millions of property are annually wasted. The difference between the cost of two establishments, in the one of which *every* utility of every substance is consumed, and in the other of which, only the first utility is consumed, is frequently as great as the net profits realized in the ordinary employments of industry. A prominent advantage of large manufacturing establishments is that they can afford to utilize many minor forms of value which, in production on a small scale, would be wasted.

Forms of Consumption.—1. Consumption may be either *of labor or of capital.* A mechanic who bestows a day's labor upon a table, consumes that amount of labor upon it. He also consumes the material upon which he has labored. He has received in return the table, and, if his labor and capital have been well employed, the result will recompense his consumption, both of labor and capital. So he who employs laborers to work for him, consumes all the labor which he purchases. Hence every day spent is, in fact, so much value *consumed.* If it bring no profitable result, it is so much value wasted.

2. Consumption may be either *voluntary* or *involuntary.* It is *voluntary* when it is effected by *design.* It is *involuntary* when it is the result of *accident.* In either case, if there be consumption, there is value destroyed. The difference is, that, in the one case, there is a profitable result expected; in the other case there is none. If a loaf of bread become mouldy by neglect, its value is destroyed just as much as though it were eaten. The difference is, that, in the one case the loss is total; in the other case the consumption of value creates a power to labor which is of more value than the loaf itself. If, for the want of a fender, the fire fall out of the fire-place and burn the carpet, the carpet is as effectually consumed as if it were worn out by use. The difference is, that, in the one case it affords a substantial convenience, and in the other it affords none. If, by forgetfulness or neglect, a gate is left unlatched, and it is beaten in pieces by the wind, it is as effectually consumed as by the wear of several years. The difference is, that, in the one case it answers for a long

time the purpose of inclosure, in the other case it answers no purpose at all. Hence the necessity of care and vigilance in all the business of life. Almost every thing is constantly tending to destruction. Vegetable matter decays. Animal matter putrefies. Most of the metals may be corroded. Almost all our possessions are liable to accidental destruction, from fire, or flood, from the frosts of winter or the heats of summer. Hence, without our continual care, a continual process of consumption will be going on, by which our capital will be diminished.

3. Consumption is either *rapid or gradual*. The consumption of wood for fuel is rapid. The consumption of wood in consequence of the wear of a dwelling house, is gradual. But gradual consumption is as sure and as certain as though it were rapid. Hence, in estimating cost and expenses, unless an allowance be made for wear and tear, our calculations will not agree with the fact. If a man's furniture be wearing out every year, this average of loss is as much to be taken into account, in estimating his expenses, as the cost of the fuel which he consumes. Value may be consumed at the very moment of production, as in the case of the pleasure afforded by a concert or a theatrical exhibition.

The annual consumption of an individual, is the sum total of all the values which he destroys. Hence the materials upon which he operates, the tools which he wears out, the expenses of his household, both for materials and for labor, are all to be reckoned as parts of his annual consumption. So, also, the values destroyed by a nation, are the national consumption. The exports of a country are a part of national consumption, since value to the full amount of the exports is abstracted from the capital of the country. On the contrary, the imports are the product, or what the country receives back again in return for its exports or consumption.

Every man in the country is a consumer. Without consuming he could not sustain life a day. He must consume the food which he eats, the clothes which he wears, and the dwelling that shelters him. Hence, if one is doing nothing directly or indirectly to promote production, he must be accounted a useless burden upon the community. If the benefit of his services falls short of the values he consumes, he is, by the whole amount of that deficiency, an unprofitable member of the body politic.

Objects of Consumption.—All voluntary consumption of wealth is for an anticipated good. There are two kinds of good on the one or the other of which the consumer fixes his aim and expectation. The one is *the increase of wealth by Reproduction.* The other is *an immediate Gratification.* Productive consumption requires care, skill and labor, while consumption for gratification requires neither. Hence ordinarily, productive consumption is not itself a pleasure, but consumption for the other object is a present joy.

We can rarely use the same value for these two distinct and opposite purposes. If a man consume one hundred dollars in amusement, or in ostentation, he cannot have it also as capital, to be employed in his trade. And, not only can he not have it *now,* but he can never have it *again.* If it be invested in reproduction this year, it may, by next year, amount to one hundred and fifty dollars, and the year after, to two hundred dollars, and in twenty years it may become five thousand dollars. If it be spent on an entertainment, or a journey of pleasure, it is lost, and all that it might have subsequently become, is lost forever. This should be borne in mind by every man who wishes to rise to independence. Every dollar which is spent in self-gratification, is so much capital placed forever out of his power. And, on the contrary, every dollar which he invests in reproductive employment, may at some future time minister to gratification, or it may provide the means of much more valuable gratification, in subsequent life.

In order to present the principles of sound economy as applied to them we must consider these two phases of consumption separately.

1. Consumption for Reproduction.—In treating the laws of Production, it has been already shown that the creation of values always involves a meeting of Capital and Labor in which both are consumed.

With respect to the consumption of *Capital* the following economical rules may be laid down.

a. To produce a given result, the consumption of capital should be as small as possible. The ordinary maxim is as true as it is common, *a penny saved is a penny earned.* In estimating the profits of any operation, it is manifest, that he who has produced a value worth one hundred dollars, at an expense of sixty dollars, reaps a profit of twenty dollars more than he who has produced the same value at an expense of eighty dollars. Thus, the farmer should economize to the utmost all his materials. He who saves half a bushel of seed in sowing an acre, enriches himself as much as though he had reaped half a bushel more per acre. It is said that in China, sowing is always done by drilling. One of Lord Macartney's suite estimated that the *saving* throughout the whole empire from this improvement is sufficient to feed the whole population of Great Britain. The same principle applies to mechanics, manufacturers and all consumers whatever. It is, unfortunately, the case that, from want of care and ingenuity, a much larger portion of value is commonly consumed, than is necessary for the production required. This is especially the case with fuel. Probably not more than one-tenth of the heat given off by wood is rendered serviceable by an open fire-place.

b. We *should employ capital, of no greater value than is necessary* to effect the production intended. Hence, every producer should make it an object of inquiry, to ascertain, so far as the present state of knowledge may enable him, in what manner he may effect his purposes by the least costly materials. The merchant, on this principle, should, before making an exchange, ascertain what is the cheapest product at home, with which he will be able to procure a given amount of a product from abroad. Very much of the success of a producer must, of course, depend upon his skill in this respect. The discovery of a cheaper dye stuff of equal goodness, or the exchange of one export for another, may frequently, of itself, be sufficient to render a man independent. We do not, of course, suppose that any man will be so simple as knowingly to expend more in production than he supposes necessary. To guard him against this folly is not our object. It is rather to incite every man to a more thorough and intimate knowledge of the principles on which the operation which he conducts, depends.

c. It is important that *every utility possessed by any substance be entirely consumed.*

In order to secure this result, attention must be paid to two circumstances. *First.* All the *fragments and remnants* should be, so far as possible, employed to some valuable purpose. This principle is well illustrated in the various uses to which the horns of cattle are applied. The horn consists of two parts, an outward horny case and an inward conical shaped substance. The first process consists in separating these two parts by means of a blow against a block of wood. The horny exterior is then cut into three portions by means of a frame saw.

1. The *lowest of them,* next to the root of the horn,

after undergoing several processes by which it is rendered flat, is made into combs.

2. The *middle of the horn,* after being flattened by heat, and its transparency improved by oil, is split into thin layers, and forms a substitute for glass in lanterns.

3. The *tip of the horn* is used by the makers of knife handles, and of the tops of whips.

4. The *interior* or *core* of the horn, is boiled down in water. A large quantity of fat rises to the surface. This is sold to the makers of yellow soap.

5. The *liquid itself* is used as a kind of glue, and is purchased by the cloth dressers for *stiffening.*

6. The bony substance which remains behind, is sent to the mill, and being ground down, is sold to the farmers for manure.

7. The clippings and shavings are also sold to the farmers for manure, or are used, in small quantities, for the manufacture of toys.*

Now, it is evident that if any part of this material were wasted, the cost of the manufactured articles would be higher, and the gains of the producer less. And we also see that he who first discovered the mode of rendering any one of these portions of a horn useful, must, by this single discovery, have made himself rich.

Second. All the values must be consumed in the most profitable manner. It frequently happens that a producer wants but one value from a substance for *his particular purpose,* while another and an important value remains unappropriated. It is always a matter of importance to employ, in the best manner, every value which a substance is known to possess. Thus, after we have derived from wood, all the heat which it can evolve, it leaves ashes, which possess an important value. After the oil has been expressed from flax seed, the residuum is valuable food for cattle. The employment of this utility of course, lessens the price of oil, and increases the demand for it. Hence, the superiority as to the economy, of large establishments over smaller ones. A large manufacturing establishment can carry on several distinct operations, for the sake of using these secondary utilities. In a small one, this would be impossible, and much must in consequence be wasted. Thus, in connection with a large slaughter-house, a soap and candle manufactory, a manufactory of glue, and one of neat's foot oil, may be sustained, while a large number of hogs are fattened with the refuse of these several establishments. In this manner, every part of the slaughtered animal is profitably consumed. In small establishments, a large portion of these fragments would be wasted.

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* **Babbage on Manufactures.**

With respect to the *Consumption of Labor*, true economy requires us

a. To employ *precisely as much labor* as is necessary to accomplish the intended result. We should never employ *more* than is wanted. This generates idleness and negligence. One supernumerary laborer is not only useless himself, but he generally requires the time of two or three others to bear him company in idleness.

We should never employ *less* labor than is wanted. This produces confusion and destroys the advantages of correct division of labor. It saves nothing to employ one person less than is necessary in an establishment, and to suspend the labor of others several times in a day, in order to do the work which that one should have accomplished.

In general, provided of course, the work be well done, the less the consumption of labor the better for the producer. Hence, the economy of labor-saving machinery. He who, by an ingenious contrivance, is able to save the hire of one laborer, will find himself, at the end of the year, richer by precisely this amount saved.

b. We should employ labor at ***no higher price***, than is necessary to accomplish our object.

Every important operation consists of several subordinate operations, requiring very different degrees of skill in their execution. According to these degrees of skill, the wages of labor are adjusted. Now, economy demands, that labor of no higher price should be employed on each several operation, than the importance of the operation requires. He who is able so to arrange his laborers, as to execute, by labor worth fifty cents, what was formerly executed by labor worth one dollar, makes a gain of fifty cents a day. Thus, in the power-press, the labor of press-work which formerly employed two able-bodied men, is executed, in part, by animal force, or by steam power, and the remainder by women. The reduction in price thus effected is very considerable.

But while this is the fact, it is also the fact, that it is never profitable to employ laborers incapable of accomplishing the result. If a particular part of an operation require skill and labor worth five dollars per day, it is better to give this price than to confide it to an incompetent person who is willing to work for two dollars per day. Thus, a good painter of calico patterns, a good calico engraver, or dyer, may be cheaper at five dollars per day, than an inferior artist, even if the latter would perform the labor for nothing.

Hence, the importance of an accurate knowledge of principles to every one engaged in extensive production. It is by deep and thorough reflection upon every part of the process which he conducts, that a manufacturer is able to keep up with, and especially to add to, the improvements of the age, and to prevent himself from being undersold by his more enterprising and intelligent neighbors.

c. The labor *paid for, should all be performed.* Time, as it is frequently said, is money. It is surely money to him who pays money for it. And, of course, every hour for which he pays, that is spent in idleness or uselessness, is so much useless consumption, or so much absolute loss.

The causes of the waste of labor are various. Some of the more common are :

Want of superintendence. It cannot be supposed that laborers, if left alone, and if paid by the day, will labor as faithfully as if laboring for themselves. Hence the necessity and the economy of efficient superintendence. He who employs twenty men by the day, to perform a particular piece of work, will find that an efficient superintendent will, by preventing idleness, sauntering, and story-telling, save much more than his wages. Hence, commonly, where the labor is of such a nature as to allow of it, it is cheaper to pay by the piece than by the day. In the one case if a laborer be idle he wastes his *own* time ; in the other case the time of the employer. It is easy to perceive which case is the more favorable to industry.

Irregularity. This is a great source of waste of labor. Where tools are allowed to get out of place, materials to be deficient or unsuitable ; or where several laborers are obliged to stand idle, to wait for the completion of an operation which is done out of season, much time must of necessity be lost. In a shop containing a dozen workmen, if each one spend, on an average, half an hour a day in looking for misplaced tools, or in waiting for materials not at hand, this is a loss of more than half the wages of one laborer a day. This, in a year, would be sufficient to purchase the clothes of a small family.

Defective tools. In order that the economy of labor may be as great as possible, the tools by which labor is saved, should be as perfect as possible ; otherwise we derive only a partial benefit from the invention. He who employs a man to chop wood, would certainly see the importance of furnishing him with a sharp axe. He who erects a fence, to save the labor of guarding his cattle, will certainly do wisely to keep his fence in good order. It is surely less labor to *mend a gap in a fence,* than to be obliged to plant a field a second time, because the grain has been destroyed by cattle which that gap permitted to enter. It takes less labor to mend a leakage in a mill dam, than to rebuild the dam after it has been, by means of that leakage, carried away. Hence the importance of keeping every part of an establishment in perfect order, and of allowing nothing to be out of repair, if it be possible to repair it.

"I remember," says Say, "being once a witness of the numberless misfortunes which a neglectful house-keeping entails. For the want of a small latch, the gate of the poultry yard was forever open, there being no means of closing it externally, and many of the poultry were lost in consequence. One day, a fine young porker made his escape into the woods, and the whole family, gardener, cook, milk-maid, etc., presently turned out in quest of the fugitive. The *gardener,* in leaping a ditch, got a sprain that *confined him to his bed for a fortnight.* The cook found the *linen burnt that she had left at the fire to dry.* The milk-maid forgot, in her haste, to tie up the cattle in the cow house, and one of the loose cows *broke the leg of a colt,* that was kept in the same shed. The linen burnt, the gardener's work lost, were worth twenty crowns, and the colt as much more, so that forty crowns were, in a few minutes, lost, for want of a latch that would not have cost more than a few sous." [Pol. Economy, Book 2d, chap. 5.

Illustrations of the importance of having every instrument in order, and in place, are occurring in most establishments every day. They teach us, that economy of capital, as well as of labor, requires, that every thing should be done in time, and in season; that if a thing need to be done to-day, we have no means which shall enable us to estimate the loss that may ensue by putting it off until to-morrow; and, that negligence is as much at variance with the laws of our Creator, as absolute wastefulness, inasmuch as it exposes us to equally severe punishments.

Supposing now that both labor and capital have been invested upon the most economical principles. The object for which they have been invested is the creation of products. Hence, the greater this product is, the more successful the investment, the better is it for the individual, and the better is it for the community. The object of the farmer is, with a given soil, a given expenditure of labor, of seed and of manure, to raise the greatest amount of *value*, in a harvest. This will *generally*, though not *always*, be as the *quantity*. Fifty bushels of common apples will not sell for so much as forty bushels of good ones. One hundred pounds of coarse wool, will sell for much less than one hundred pounds of fine wool. Hence, his object should be, from a given expenditure, to derive the greatest amount of profit. It is by thus adjusting his expenditure, and thus calculating the results, that an intelligent and thoughtful farmer will grow rich, while all around him are remaining stationary or are growing poor.

So, it is the business of the manufacturer to create, with a given expenditure, the greatest amount of value. If he can succeed in giving to his cloth a better dye, or can produce a more durable or a more tasteful fabric, or can adapt it better to the satisfying of any human want, its value is, by so much increased, and he and the community are the better for the increased value of his production.

It is evident, that, in order to do this, a systematic knowledge of the principles of any employment is necessary to the individual by whom it is carried on. A man, in order to be a skilful producer, must be acquainted with the laws of production, that is, those laws of nature and of society which govern the transaction in which he is engaged. Hence the importance of accurate knowledge, and sound mental discipline, to all classes of society.

We see, in the above remarks, another illustration of the truth, that the benefit of one is the benefit of all, and the injury of one is the injury of all. If a man economize labor and capital, he increases his own wealth, and he also rescues as much as he saves, from actual destruction. The whole of this amount may go to the further increase of production, or to the satisfying of human wants. The more he produces, the greater is his wealth; and the greater is the value which is created for the good of the whole community.

As it is manifestly for the interest of the individual, so is it for the interest of the society, that every producer should consume as little value, and produce as great value, as possible. Hence the impolicy of those restrictions which will not allow the individual to purchase and to sell where he pleases. If he must give a higher price than is necessary for his material, this is, by the difference, unprofitable consumption. If he cannot dispose of it where he pleases, this is by so much, unprofitable production, because he is unable to realize from his production as much as he would be able to realize were he left to himself.

2. Consumption for the Gratification of Desire.—Under this head the following kinds of legitimate gratification may be enumerated.

a. Gratifications which pertain directly to the preservation of Health and Life. What are called *the necessaries of life,* food, clothing and shelter, are here included. All men require these in some form and in some degree. To provide all with a due quota of them is a matter of first importance. It is impossible to draw an absolute line of demarcation between necessaries and superfluities. The terms are always used relatively, having respect to climate, grade of civilization, occupation, social position, private property,—the varying outward circumstances of men: and also to the taste, temperament, education and bodily health of different persons. For the pariah of India, a bamboo hut, a measure of rice and a few yards of cotton cloth provide all the necessaries of life. A respectable citizen of New York would require values a hundred-fold greater to meet his necessities. Yet every man has more or less distinctly defined to his own mind, a list of things which are for him and his family, necessities, things that must be provided and consumed to sustain life, as they live.

b. Gratifications which delight the Senses and Tastes. This class, in addition to things indispensable, includes delicacies for the table, elegancies of dress and equipage, ornaments, beauties of fine art in painting, statuary, architecture and music, public exhibitions to please the eye and the ear—what are commonly termed *Luxuries.* The desires which run in this direction are natural. They are multiplied and stimulated by individual and social culture. Their gratification properly regulated, is elevating and refining and has the effect indirectly to incite invention, quicken industry and increase production. Under the exercise of sound economy, means for these gratifications may be drawn from the resources of nature, by human skill and genius, and may be quite generally distributed. It is morally and socially healthful for people of every class and condition to enjoy some things which they esteem luxuries. The potato-patch will yield no less for the beauty of flowers growing on the border. The necessaries of the home will be enjoyed with a better relish for a tasteful carpet on the floor and bright pictures on the walls.

There is need however, to note *the danger of excess and abuse* connected with this class of gratifications. Appetites unnaturally formed and unduly pampered, run into passions which cannot be satisfied, and lead to indulgences which are ruinous to body and mind, producing misery instead of happiness. Where objects of beauty, the products of fine art, are valued only as things that everybody cannot have, and minister chiefly to a desire for vain ostentation, they breed discontent, envyings and jealousies which are the bane of happiness. *Fashion* often usurps the throne and rules with despotic tyranny in this department of gratification, commanding wasteful and exhausting extravagances. The Scriptures therefore justly condemn these excesses and perversions of sense and taste as "the lust of the flesh, the lust of the eye and the pride of life."

The *degree* to which a person may properly expend his means on these gratifications, must depend on the wealth at his command, his social position, his culture and his true and healthy taste. The desires need to be regulated by a due regard to the future as well as to the present well-being; and actual practice should be modified by regard to others' well-being as well as one's own.

c. Intellectual Gratifications derived from the very exercise of the mind's powers and the acquisition of knowledge. The chief outlays here are for books, apparatus, experiments, lectures, etc. These affect the higher part of men's nature and yield a kind of pleasure exceedingly rich and pure, while the consumption of wealth involved is very small in proportion to the satisfaction realized. All are capable in a greater or less degree of enjoyment from this source, and the capacity for it increases as provision for it is enlarged. The highest welfare of individuals and of society is promoted by ministering such gratifications. By offering a fit substitute, they furnish the best check to ruinous sensual indulgences. Hence it is wise economy to foster desire in this direction by ample provision for its gratification.

d. Social Gratifications through the exercise of hospitality and all acts of friendliness, and through the varied contact of men with one another, in the small circle of intimate associates, in festive assemblies and in extensive travel about the world we live in. The desire for such gratifications springs from the constitution of our nature, as beings formed for mutual intercourse and fellowship. By them, society is bound together by the most healthful and the strongest ties, and the general happiness is greatly promoted.

e. Moral Gratifications through the culture of a good conscience toward God and toward men and the exercise of benevolence. These involve some expenditures for the support of religious institutions and in the charitable bestowment of a portion of one's wealth on others for their temporal relief and their spiritual improvement. They touch the noblest and purest capacities of our nature and yield the richest satisfaction—a satisfaction not limited to the moment of gratification, but abiding for the life-time of the soul. This kind of gratification may come within the reach of all. The degree of satisfaction is measured, not by the grandeur of the religious service, nor by the amount of the beneficent gift, but by the sincerity and heartiness of the worshiper and the self-sacrificing good-will of the giver.

Some Rules of Economy which apply to consumption for the gratification of desire are worthy of notice. As in consumption for Reproduction, so here, they respect both capital and labor.

A particular gratification having been resolved upon, sound economy dictates that the consumption of values be *as small as is consistent with the accomplishment of our purpose.* This forbids us to purchase *more* of any value than is wanted. The articles ordinarily consumed in a family, are rapidly destructible. If more be purchased than is wanted, it is liable to become useless, and in this case, the loss of this excess is total. By having a superabundance of any thing consumable, it becomes in the eyes of those who use it, less valuable, and is used less carefully. And if neither of these results be experienced, if an article be purchased a year before it is wanted, the purchaser loses the interest for a year of the money expended. This must be considered in deciding the question whether to purchase supplies by wholesale or by retail.

By this rule, it is unwise also to purchase any thing because it *is cheap.* If a man *need* any thing, its cheapness is a reason why he should buy, but if he do not want it, its cheapness is no reason at all. A man may buy stones very cheap, but it is doubtful whether he would be either enriched or made happier by the purchase. Many a garret is filled with great bargains, which were purchased because they were cheap, and then laid away to rot.

Again, the consumption should *be as perfect as possible.* When we have possessed ourselves of a substance, it should not be thrown away until every utility which it possesses has been exhausted. Thus an article of clothing which will not answer any longer for one purpose, may answer very well for another. An article of food, which may not be used in one form, may be used in some other form. And hence, in general, nothing should come into a house unless it be wanted, nor in a larger amount than is wanted; and nothing should leave it until all its utility is exhausted.

Economy dictates further that all *means* should be provided for the most *perfect consumption* of values. Hence, every useful utensil should be furnished, and should be the most perfect of its kind. It is cheaper to buy a coal-hod than to carry coal in a basket, and by saving a dollar in a utensil, ruin a carpet worth fifty dollars. It is cheaper to have every description of culinary vessel that may be needed, than to have food spoiled by being cooked in an unsuitable instrument. It is cheaper to have a bad fire-place altered, at an expense of fifteen dollars, than to consume annually ten dollars worth more of wood than is necessary.

Hence, it is also important that every article purchased be of such a nature as will admit of the most profitable consumption. If a man buy fuel which gives off very little heat, because it is at a low price, it is by no means certain that he has made a successful purchase. It should always be remembered that we want a given amount of utility, and not the mere form in which it seems to reside. It is cheaper to purchase a dollar's worth of utility for a dollar, than half a dollar's worth for seventy-five cents.

The same principles apply to *labor*. Economy directs that in a household we should purchase as much labor as we need, and of the kind that we need, but no more than we need. When we pay for useless labor, we throw money away ourselves. When we employ incompetent labor, we pay others to throw it away for us.

These are the principal considerations which should govern our expenditures. And it will be seen that they apply to all the conditions of men. Whether our expenditure be large or small, it should be conducted with economy. *The object to be attained is, to secure as large an amount of gratification, at as small an expenditure as possible.* To the man who has but two hundred dollars per year to spend, it is certainly important to spend it economically. To the man who has ten thousand dollars per year, it will generally be found convenient.

Hence, it will be seen that in order to enjoy the comforts or the luxuries of life, at the least expense, *care and superintendence and knowledge* of the various operations performed in a household, are absolutely necessary. And as this department of consumption generally devolves upon the mistress of a family, we see how important to the execution of it with success, must be vigilance, care, intelligence and industry. The husband, by the employment of capital, labor and skill in productive consumption, secures an annual revenue for the purpose of consumption in the various means of gratification, whether necessary or superfluous. The expenditure of this annual revenue, or the making of those arrangements which govern the expenditure, generally devolves upon the wife. If that expenditure be made without economy, either the gratifications which it might procure are never enjoyed, and by all the consumption, neither comfort nor pleasure is obtained; or else if the gratification sought for be obtained, it is obtained at an expense absolutely ruinous. Hence, it will be seen that the physical comfort, as well as the means of happiness of both parties, depends more on *the domestic education of the female sex* than is ordinarily supposed. Affection will rarely exist in the atmosphere of self-inflicted poverty. No man can respect a woman, by whose caprice and ignorance of her appropriate duties, he is plunged into disgraceful bankruptcy, and wedded to hopeless penury. Nor let it be supposed that no talent is requisite skillfully to superintend a household. It requires at least, as much ability to direct with skill, and on principle, the affairs of a domestic establishment, as to select a ribbon or dance a minuet, to finger a piano or to embroider a fire-screen.

Sound economy also suggests certain considerations respecting *the selection of our gratifications.* Where the amount of gratification in two cases is equal, it is wise to choose *that which is the least expensive.* The reason for this is too obvious to need much illustration. If a particular gratification can be procured for one hundred dollars, and another which will afford an equal amount of happiness can be procured for ten dollars, the cheaper is to be preferred; because, while in this case we obtain an equal gratification, we have ninety dollars remaining with which to purchase other objects of desire.

When two modes of gratification are in themselves equally productive of happiness, but of which one *tends to the wealth,* and the other *to the poverty,* both of the individual and of society, the former is to be preferred. Thus, if it cost the same sum to spend an evening in intellectual improvement that it would cost to spend it in a drunken frolic, and the pleasure in the two cases were the same, inasmuch as intellectual cultivation tends to knowledge, which is a valuable consideration to every producer, and a drunken frolic has no such tendency, economy would teach us to spend the evening in intellectual cultivation.

If now we compare the various modes of expenditure most common among men, it will appear evident that *the economy of the moral and intellectual pleasures* is somewhat overlooked.

The expenditures for all the real wants and conveniences of a human being, may, by industry and frugality, without great difficulty be supplied. It does not cost much to provide all that we need for wholesome and palatable food, for comfortable clothing and shelter, and for all the furniture demanded for convenient domestic arrangements. Our greatest expenses are for those objects which yield no other utility than the mere gratification of the senses, or, which are rendered necessary by command of fashion, or the love of ostentation. Thus, in the purchase of a garment or of an article of furniture, a part of the price is paid for the real utility which it possesses, and the remainder for that particular form, or color, or workmanship, which is designated by fashion. Now, it frequently happens that this latter portion of the price is far greater than the former. The same may be said of many of our expenses of the table, and of various others.

Now, that men should not, if they have the ability, in any manner gratify their senses, and yield obedience to fashion, it is not necessary here to affirm ; nor is it necessary that political economy should prescribe the limit within which these gratifications shall be confined. A few considerations, for the sake of illustrating the comparative economical advantages of other modes of gratification, is all that will be here attempted.

Moral and intellectual pleasures are by no means expensive. To spend time in moral cultivation, is no more expensive than to spend it thoughtlessly and frivolously. The time consumed in thoughtless dissipation, if employed in moral culture, would be sufficient to effect great changes in our habits and tastes.

The pleasures of *benevolence*, so far as pecuniary Consumption is concerned, are less expensive than those of the senses. Were the sums lavished in thoughtless caprice in obedience to fashion, or in the gratification of appetite, to be reserved for charity, how great an amount of happiness might be created both in the benefactor and the recipient.

The same may be said of *intellectual pleasures.* Books, and all the means for intellectual gratification, may be had at an expense within the reach of a very large class of the community. The useless ornaments of a drawing room, would frequently purchase a considerable library. The sums of money annually paid by most families, to satisfy the demands of fashion, would provide them with as much reading as they would desire. Now, when these two kinds of pleasure are equally set before us, and when the one may be procured at so much less expenditure than the other, it surely is worth the attention of every man, deliberately to inquire by which mode of investment he will best secure his own happiness. There seems something ill-adjusted, when the habitation of a moral and intellectual being reminds us of everything thing else rather than that he is either moral or intellectual.

Moral and intellectual pleasures tend to the wealth both of the individual and of society.

The exercise of benevolence has several important economical tendencies. For instance, it tends directly to cultivate the habits of *self-denial and self-government* which are so essential both to industry and frugality. Sensual self-indulgence tends directly to produce both indolence and capricious and reckless expenditure.

Again, the habit of benevolence tends *to moderate and correct that intense love of gain,* which is so frequently the cause of ruin to enterprising men. In the management of any hazardous business, he will be the most likely to succeed who looks with entire coolness on the chances of loss and gain. The too eager, governed by their imagination, rush into needless danger. The too cautious allow a fair prospect of advantage to pass by unimproved. The one is as liable to fail as the other. He who, by the practice of benevolence, has learned a more accurate estimate of the blessings of wealth, will more probably than either, judge correctly. The miser and the sensualist will fall into opposite extremes, one upon each side of him.

Besides, *the social benefits* of benevolence are incalculable. It unites together the various classes of men by the strong ties of affection and gratitude. By bringing all classes of men more directly under the view of the whole mass of society, social responsibility is increased, and the encouragements to virtue and the restraints upon vice are strengthened. When the rich are hard-hearted and luxurious, the poor are disaffected, anti-social, and destructive. In so far as benevolence, therefore, tends to the improvement of the social dispositions of men, it may lay claim to great economical advantages.

And the same is true of *intellectual pleasures.* A man cannot enjoy these without improving his mind, and rendering it a more valuable instrument both for the promotion of his future happiness, and the accumulation of wealth. Knowledge is power, in what sphere of life soever it be exerted. The gratification of the senses enervates the body, enfeebles the mind, and tends to render intellectual exercise unpleasant, and to unfit us for any important or highly responsible exertion.

CHAPTER XI.

PUBLIC CONSUMPTION.

The Nature of Public Consumption.—The gathering of many individuals into a community gives rise to a peculiar class of common wants, which may be termed the wants of *Society*. To satisfy these wants, a part of the annual revenue of every member of society is contributed in some measure to the public and is expended by the public agents, that is by the *Government*.

This expenditure is provided for by means of *Taxation*. When a given sum is to be raised for the accomplishment of any object, it is, by some mode of assessment, distributed among the various individuals of the community, and every one is obliged to pay the proportion with which he is charged. The sum thus collected is then, for the accomplishment of various purposes, consumed by public agencies. The consumption itself is of precisely the same nature as that effected by individuals, that is, the value is destroyed, the utility consumed is annihilated. If an individual burn gunpowder, its value, measured by the labor and material by which it was produced, is destroyed; if a hundred or a thousand men do it, the result is the same. If a man in the digging of a ditch consume the labor of a thousand workmen, and use the provisions necessary for their sustentation, the whole value thus expended is annihilated. And if a thousand men unite in the undertaking, the annihilation is the same. In a word, government is nothing but a system of agencies; and property consumed by the government, is as really consumed, and its value as really destroyed, as though the individual citizens consumed it themselves.

Now, this being the fact, the rule by which consumption is to be judged of, is precisely the same, whether it is public or private. If the product created by the consumption, whether that product be material or immaterial, is of greater value than the product consumed, it is profitable consumption; that is, the public receive in return a greater value than they parted with. If a less valuable product be created than is consumed, it is unprofitable consumption, and the value might better have remained in the hands of individuals. If no product whatever be realized, it is a total loss, and the value taken from the individuals might as well have been thrown into the sea. Nay, had they themselves thrown the value consumed into the sea, there would have been a gain, as the expense of collecting and consuming it would have been saved. And still more, if the value consumed produce no valuable results, but on the contrary, be employed to promote the purposes of oppression and misrule, the evil is enormous. The possessions of the individual are taken away, not only without rendering him an equivalent, but for the sake of employing other men to torment, and deprive him of his dearest rights.

It is frequently asserted, that public expenditure enriches a country, or that at least, it is wholly innocent, since it quickens the circulation of money, and does no harm, inasmuch as all the money always remains in the country. To obviate such an objection, let us trace, from first to last, the passage of a product toward ultimate consumption on the public account.

"The government exacts from the tax-payers, the payment of a given sum in the shape of money. To meet this demand, the tax payer exchanges part of the products at his disposal for coin, which he pays to the tax-gatherer. A second set of government agents is busied, in buying with that coin, clothing and other necessaries for soldiery. Up to this point, there is no value either lost or consumed; there has only been a gratuitous transfer of value and a subsequent act of barter, but the value contributed by the citizen still exists in the shape of stores and supplies in the military depot. In the end, however, this value is consumed, and then the portion of wealth which passes from the hands of the tax-payer into those of the tax-gatherer, is destroyed and annihilated.

"Yet it is not the *sum of money* that is destroyed; *that* has only passed from one hand to another, either with or without any return, as when it passed from the tax-payer to the tax-gatherer; or in exchange for an equivalent, as when it passed from the government agent to the contractor, for clothing and supplies. The *value of the money* survives the whole operation, and goes through three or four, or a dozen hands, without any sensible alteration. *It is the value of the clothing and necessaries that disappears*, with precisely the same effect as if the tax-payer had, with the same money, purchased clothing and necessaries for his own private consumption." *

Consumption, then, is of the same nature, whether it be public or private. It is a destruction of value; and the rule by which we are to determine whether it be profitable or unprofitable, is the same in both cases. It is by inquiring, whether the benefit created by the consumption is greater than, equal to, or less than, the value of the product consumed.

While, however, this rule is always to be adopted, it is, as in the case of individual consumption, to be interpreted with a liberal and intelligent forecast. It must not, of course, always be expected, that the product created by consumption, will be a visible, tangible, material substance. Thus we see no physical, tangible product, as the result of taxes for the support of civil government. But we receive the benefit in security of persons, property, and reputation; or in that condition of society which, though it be incapable of being weighed and measured, is absolutely essential both to individual happiness, and individual accumulation. The same may be said, in substance, concerning the taxes paid for general education. Here, whether the tax-payer receives his remuneration in instruction given to his own children, or not, he yet receives it, in the improvement of the intellectual and social character of his neighbors, by which his property is rendered more secure, the labor for which he pays is better performed, and the demand for whatever he produces, is more universal and more constant. The same may be said of that public expenditure by which the moral and social character of a community is elevated, the taste of a nation refined, and an impulse given to efforts for the benefit of man. With this view, no one could oppose the expense incurred in bestowing upon public edifices elegance, or even, in some cases magnificence of structure; in the public celebration of remarkable eras; and in the rewards bestowed upon those who have by their discoveries enlarged the boundaries of human knowledge, or by their inventions, signally improved the useful arts. Political Economy is opposed to none of these forms of expenditure; all that she requires is, that a valuable consideration be received in return for the consumption; and that the consumption be not disproportionate to that consideration.

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* Say.

The principles and methods of Taxation come more properly under the head of Distribution and will be discussed in our third Division of the science.

The Purposes to which Public Consumption is properly applied may be specified as follows.

1. *For the Support and Administration of Government.*

This is by far the most necessary of any of the objects of public expense. Without government there could be no society, and without society, there could neither be redress of wrong, nor security of property. But government cannot be administered without officers, and no one will devote himself to the discharge of the duties of civil office, unless he be paid for it.

The principles which should govern this branch of expenditure, are few and simple.

Economy requires that precisely *such talent* should be employed, in the various offices of civil government, as may be necessary to insure the discharge of the duties of each office in the best possible manner. Many of these offices can be discharged successfully, only by the first order of human talent, cultivated by learning and discipline, and directed by incorruptible integrity. Now it is certainly bad economy, to employ inferior talent to do badly, that which can be of service only when it is done well.

Hence *the salaries* of judicial, legislative, and executive officers should be such as will command the service of such talent as the duties of each office require. It is most unwise parsimony, to give to a judge such a salary as will command the services of nothing more than a third rate lawyer: and it is mean to ask an individual to do a service for the *community*, at a lower rate than that at which he would do it for an individual.

In answer to this, it may be said, that by bestowing large salaries upon the officers of government, we present temptations to avarice. But the reduction of salaries by no means diminishes the evil. Were emolument to be reduced, there would always be a contest for office. The only question then is, whether we shall have the contest between men of *high* or between men of *low* character; between those who are capable of *serving us to our advantage*, or those who are only capable of serving us to our disadvantage. Were the most important trusts in the government to command no higher salaries than the wages of day laborers, there would be as great competition for them as at present; only then, the great contest would be between day laborers, instead of being between men of professional ability.

Here, however, the general principles of wages should have their full effect. For instance, where an office confers *rank or dignity,* or indicates professional eminence, the emolument should be less than would otherwise be paid for the same amount of service. Again: when an office is *permanent,* the emolument should be less than when it is temporary. But on the other hand, if it be insisted upon, that neither rank nor consideration shall be allowed to the public officer, but that all men are and must show themselves to be on a level, the remuneration of office should be higher. And also, when an office is temporary, and the having held it, disenables the incumbent for subsequent professional employment, the remuneration should rise accordingly. In such cases a pension should be attached to the office, if its duties for a given time have been faithfully discharged.

Altogether at variance with these principles is the practice of making appointments to civil office as *a reward for partisan political activity,* or from personal relationship or attachment, without regard to fitness for the duties. Considering the amount and variety of service needed and the responsible trusts involved, true economy, which always means efficiency in the administration of public affairs, demands that in the civil, as in the military and naval service, there should be *a preliminary training,* tested by thorough examinations, and *a regular system of promotions* according to merit and time of service, with emoluments sufficient to encourage permanence and fidelity. When in these matters, the science of Political Economy shall supplant the chicanery of Party Politics, the nation will be saved millions of wealth as well as the mischief and shame of abounding corruption.

2. *Expenditures for Works of public Convenience and Advantage,* commonly called Public Improvements. In this category are included such items as paving, cleaning and lighting the streets of a city, providing water-works and sewerage, constructing roads, canals and railways, improving harbors, building and sustaining light-houses, making surveys for the safety of navigation, clearing the channels of rivers and raising dykes or embankments to keep rivers in or to keep the sea out. The main feature of all these works is that *they confer benefits upon the entire community.* They also involve an exercise of the right of *eminent domain,* that is, the right of a government, under certain circumstances and on equitable conditions, to take private property for public use.

Some of these works are of such a nature, and such is the benefit they yield that it is impracticable to derive any income from the capital expended. Hence they *must be* provided for by public funds. Others of them come within the scope of private enterprise, and under wise management, may be made to yield a fair profit on the capital invested, by charges for their use. Many writers affirm therefore, that a government should never assume any of these works which individuals are willing to undertake. But private enterprise can do nothing with them without action of the government authorizing the works and conferring privileges and powers for their construction and management. There is danger that these powers will be abused for selfish interests, in disregard of the public good. Some of them also, like the Pacific railway, are of too great magnitude for private enterprise unaided, and it may be wisest and best that the government should control those works to which it must contribute aid. Recent experience with some of our great railway corporations gives much weight and importance to these considerations and complicates the question as to what should and what should not be undertaken directly by the government. Without entering into the discussion of this question here, we may say that, in the light of political economy, it is evident that *the interests of the whole public should always take precedence of all private interests, and that a government should never, by any grant or charter, alienate its right or its power to guard and serve the public interests as they are concerned in these works.*

3. *Expenditures for advancing Science and diffusing Intelligence for common interests.* This class of expenditures is closely allied with that last referred to, but it deserves a distinct notice. It embraces exploring expeditions to remote and unknown parts of the earth, expeditions to localities most favorable for important astronomical observations, geological surveys, coast surveys, meteorological observations, entomological investigation, and the whole post-office system as a means of diffusing intelligence and promoting social intercommunication. Some of these expenditures do not contemplate a present imperative need, nor an immediate pecuniary advantage, but they do all yield broad, general benefits, of the highest importance even in their economical aspect, which justify the judicious application of the public funds to provide for them.

In a thickly populated country of limited extent, a postal system may be made self-sustaining by a very low charge for the service rendered, and might be maintained by private enterprise. But no doubt, it is even then safest and surest under the control of the government. In a country like ours, however, so broad, and in many parts so thinly inhabited, it must be maintained by the government, and the common interest justifies a low rate of postage, though for a time, it may make considerable drafts on the public treasury. The time is, probably, not far distant when a like common interest in the use of *the magnetic* *telegraph*, as a means of communication, will require the government to connect it directly with its postal system.

4. *Expenditures to promote the General Education of the people.* This is a proper object for national expenditure, because the prosperity of a country depends very much on the general intelligence of its population. General education causes industry to be more intelligently applied and makes it more effective. It brings labor and capital more nearly upon a basis of equality, as they meet for mutual contracts and coöperation, and guards against the disturbing outbreaks of ignorant and unreasoning masses. It qualifies all to discern what are their best interests, and wisely and firmly, without violence, to stand for those interests in the sharp competitions of industry and trade. It is for every man's interest that he have intelligent men to associate and to deal with.

A system of public education *must* provide free schools open to all classes, in which children may be taught to read and write with accuracy their vernacular language, to use numbers freely and correctly in their various combinations as involved in the ordinary transactions of business, and to master the elementary facts of geography, history and science, essential as a beginning of that general information in the acquisition and use of which the mind should be growing through all the years of after life. No doubt there are communities in which the full benefit of such a system can be secured only by making *attendance compulsory;* but in general, a prevalent popular sentiment, such as is formed by the presence and influence of good schools, will be found better than direct legislation to bring the children of all classes under instruction.

Many of our American states are provided with *general school funds* which yield an income devoted to sustain a system of public education. These are rarely sufficient to provide for the entire expense of schools; nor is it best they should be, since a local interest in each school is more likely to be sustained when the people themselves contribute something for their support. For the distribution of these general funds, a rule which seems wise is commonly adopted, making the amount of appropriation to each district depend upon the amount of tax levied in the district, as well as upon the number of scholars. To make the system complete, it seems necessary, that every district sufficiently large to maintain a school, should be obliged to maintain one, and that for this purpose, the necessary funds beyond what the general school-funds may furnish be raised by the authority of the public from the district. When, however, these funds have been raised, they may safely be left in the power of each district itself, in the belief, that those who have themselves earned and contributed the money, will be more likely than any other persons to disburse it skillfully and economically. Besides this, as upon such a system, teachers will be wanted in large numbers, it may be desirable that normal-schools be established for the special purpose of educating them. This will give uniformity to the system of instruction, and enable the science of education, throughout a whole community, the more easily to keep pace with the progress of science in other departments of knowledge.

There can be no question, that the safety and best good of society, economical as well as moral, *require* the state to provide for the gratuitous education of all classes *in the rudiments of knowledge.* How far beyond this, the public system should be extended, and especially whether the state should set up and maintain by general taxation, *higher institutions such as colleges and universities, to make a scientific and professional education also gratuitous,* is a question which demands the thoughtful consideration of the economist, the statesman and the Christian. We can offer here only a few thoughts bearing on that question. No doubt, it is for the advantage of the whole state, that some of its citizens should be well trained to become *leaders of thought and influence in society.* It is clear also that the *actual expense* of a thorough liberal education is so great that if, by charges for tuition, raised to the full measure of the cost, the burden of giving their own children its advantages were thrown entirely upon parents, *only the children of the rich* could enjoy the privilege. On the other hand, it is evident that *few* comparatively can enjoy the direct benefit of these institutions and it seems unjust that the whole community should be heavily taxed to make these advantages *gratuitous for the few.* Under the control of the state, such institutions must be more or less involved in *the conflicts of political parties,* in a way unfavorable to the most successful prosecution of their work. Under such control also, it is difficult, not to say impossible, to adjust the treatment of *moral and religious subjects,* which cannot be excluded from a course of liberal education, so as to satisfy all. Moreover, it is healthful for a people that wide scope be given for the action of *private beneficence in endowing institutions of learning;* and the education that costs the young man and his parents and friends some direct sacrifice, is most likely to be appreciated, made thorough in its processes and turned to good service in its practical use. Experience in our country has shown that institutions so established and maintained, do send forth men well fitted to lead and mold public opinion and to make the learned professions strong and influential for the highest welfare of society. They deserve, as they have received, the fostering care of the state.

The importance of this work of higher education, as *a conservative power* for the industrial, social and moral well-being of a people, cannot be overestimated. The government needs to foster and sustain it by every legitimate means. The main question is simply whether or not the state shall undertake by general taxation to build up a public university to be conducted under its own control. This question demands a broad, candid and disinterested discussion.

5. *Expenditures for the care of classes afflicted by peculiar calamities or Deprivations.* Under this head, are contemplated chiefly hospitals for the insane, institutions in which the deaf and dumb, the blind and the feeble-minded, may, by peculiar processes of education, be fitted to become useful and happy members of society. Our common sympathies and benevolence dictate that such means for relief of the unfortunate should be provided. Evidently, they can be most economically provided by the state. The benefits also must be very largely gratuitous, because such calamities come in the largest proportion upon the poor. *Lavish expenditures,* in this exercise of public beneficence are, however, *to be deprecated.* Institutions may be set up and carried on in a style so costly as needlessly to increase the burdens of taxation and to be a disadvantage to their inmates, accustoming them, for a brief period, to luxuries which tend to make them, in after-life, discontented with their plain homes. A wise frugality needs to be observed even in the exercise of charity, both by individuals and by the state, that means may be exactly adapted to their end.

6. *Expenditures for the Relief of Poverty.* To relieve the sick, the destitute, and the helpless, is a religious duty, and therefore should, like every other religious duty, be a voluntary service. Hence, charity in a moral and religious community, should generally be dispensed by individuals from their own resources, or from the resources of voluntary associations.

Nevertheless, as cases frequently occur which could not with sufficient promptness, be relieved by the aid of individuals, or in which the burden would press too heavily on the most charitable, it may be proper that some public provision should be made for the relief of those whom old age, or infancy, or sickness, or sad calamity has deprived of the power of providing the means necessary for sustenance.

By far the greater number of persons requiring such aid, are, however, capable of some labor, and are also possessed of some skill. They are also far happier, when engaged in suitable labor, than when idle. It is therefore, the dictate of benevolence, as well as of economy, to provide them with means of profitable occupation. This labor and skill, if judiciously employed upon capital, will commonly defray the expenses of the support of paupers. Hence, the best method of relieving the poor, is to provide some establishment furnished with sufficient capital, in which all the poor who need assistance may be employed and supported. In many cases in New England and New York, farms have been purchased by towns or by counties for this purpose. It has generally been found, that the only expense necessary to be incurred, is the purchase of the farm, or the first investment of the capital. The establishment after this, under judicious management has generally paid its own expenses and, in some cases, it is said, has even yielded a revenue to the public. The expenses of pauperism, if they be defrayed in this manner, must of necessity be very moderate, while a competent and convenient provision may be made for every individual who actually deserves assistance.

7. *Expenditure for the Nation's Defence.* The first duty of a government is to maintain its own life and give full protection to all its subjects, in the enjoyment of their rights. If justice and benevolence universally prevailed,

this would be an easy task. But the world is yet far from witnessing the full prevalence of these principles. Hence, every nation is liable to be assailed by enemies from without, and to be convulsed by insurrection and rebellion within its own borders. Exigencies will thus arise, when nothing but *military force* will save a nation's life. True economy therefore, dictates that provision be made for such exigencies by due appropriations for armies, navies and the munitions of war. When the necessity comes and war is inevitable, then no expense is unreasonable which is necessary to prosecute it with the utmost vigor.

Yet, it must be remembered that war is always *destructive, terribly destructive* of both wealth and men who produce wealth. In the history of the world, thus far, much the largest part of national consumption in all countries, has been for this purpose. This is attested by the millions upon millions of public debt with which all nations are burdened, the greater portion of which were incurred in wars. In view of these facts, it certainly behooves all statesmen, all patriots and all philanthropists to favor to the utmost that conduct in the intercourse of nations which will be so frank, so true, so just as to arrest jealousies and disputes; and to further all measures which may lead to the settlement of controversies where they arise, by arbitration rather than by arms. The varied industries, the expanding commerce and the improving moral sentiments of the nations, on the one hand, and the ever increasing expensiveness of wars on the other, present hopeful signs that the era is approaching when social and moral forces will be more effective than military forces to guard the life of nations and keep the peace of the world. God speed the good day!

With reference to the whole range of public consumption, sound economy dictates two plain and simple rules.

1. *The Style and Scale of National Expenditures should be such as to command the respect and honorable pride of the people without useless display.*

2. *The Methods of National Expenditures should be such as to hold all the agents of government to a direct and particular responsibility and to ensure the utmost fidelity in the discharge of all trusts.*

CHAPTER XII.

THIRD DIVISION.—DISTRIBUTION.

The Scope of this Division.—We have seen that in order to the production of wealth, labor must be joined with capital; also that various kinds of labor and divers forms of capital are involved; and further, that in every process of production, there must be a consumption of both labor and capital, out of which new forms of wealth appear with increased value. In some cases, the same person both owns the capital and performs the labor. More commonly, however, those who labor, work with capital which belongs to others. In all cases, the profits, that is, the actual increase of value, can be properly estimated only after due allowance is made for capital consumed, and for the reward of both laborers and capitalists.

Moreover, the general productive industry of a people, in its wide range, includes, as we saw, many kinds of labor, such as that of the learned professions, which are indirectly, yet really concerned in production. Evidently, the compensation of all such labor must be derived from the results of production, and must be adjusted to some defined and recognized principles.

It is obvious also, that the protection of good government, giving security to persons and property, is essential to prosperous industry, and that the means for the support of the government must be drawn from the proceeds of productive industry. This item, therefore, must be included with those just named in the estimate of expenses of production.

Then beyond these, is the surplus of wealth produced over all consumed, that is, the profits, the anticipation of which is the chief stimulus to industry and enterprise. The question, to whom and in what proportion shall these profits be assigned, is one of prime importance, for the settlement of which our science should define some fixed principles. All of these matters are properly embraced within the range of this third division of our subject, which may be defined thus:

Distribution is that department of Political Economy which determines the principles on which the proceeds of industry are divided among the parties concerned in their production.

The Parties to be Recognized.—In any branch of industry and in the general productive industry of a nation, three parties are to be considered. First, *the Laborers of all grades* whose energies, physical and mental, are directly or indirectly engaged. Second, *the Owners of the Capital,* which is the fruit of past labor, saved and now combined with present labor for a joint result. Third, *the Government* which draws on the proceeds of industry generally, for its own maintenance, with a view, alike to the security of the rights of all in the processes of production, and to the highest happiness of all in the enjoyment of its fruits. In the cases before referred to, where the laborer combines in himself muscular power, acquired skill, inventive genius and managing capacity, and works on his own capital, the entire proceeds of his labor must go to him, subject only to the claims of the government. But even then, it is easy and it is well, agreeably to the principles of distribution, to set down one portion of the proceeds as compensation for the use of capital, another portion as the reward of simple labor, and yet another as a premium for the wise management of the business.

This department naturally resolves itself into four subdivisions which will be treated in their order.

1. *The Remuneration of Labor.*
2. *The Remuneration of Capital.*
3. *The Distribution of Profits.*
4. *The Revenues of the Government.*

CHAPTER XIII.

THE REMUNERATION OF LABOR.

Terms used.—The compensation of labor is represented by several terms which correspond to different kinds of labor. The term most common and applicable to the greatest number of persons is *Wages*. It means the stipulated reward for services rendered, rated either by the time occupied, as when men are paid by the day or month, or by the work accomplished, as when men are paid by the piece,—so much for each article made. This term is applied especially and chiefly to manual labor of all grades, including simple labor in which little more than muscular strength is required, and skilled labor which involves intelligence and training. It presupposes the relation of employers and employés, bound by a mutual stipulation or contract which may be varied or terminated on short notice.

The term *Salary* expresses a fixed sum of money to be reckoned usually by the year, for services which ordinarily involve some brain-work and responsible trust. Thus in a large manufactory, while the mass of laborers receive wages, the book-keeper, the cashier, the superintendent and the general manager, who may be the president of the stock-company, have salaries. The compensation of clergymen, teachers and civil officers is commonly adjusted in this form. Generally, the term implies an engagement of some permanence, and a grade of service requiring special qualifications and previous education.

In some kinds of business, agents are employed whose labors are compensated by *Commissions,* that is a certain rate per cent of the value involved in each transaction. Thus brokers, or persons engaged in the purchase of stocks, real estate, etc., insurance agents, collectors of debts, traveling clerks who solicit orders of goods for mercantile or manufacturing establishments, are compensated for their labor by stipulated commissions. In this case, the employer or the party who engages the service, makes himself responsible only for what is actually done, and the agent's reward will depend very much on the enterprise, tact and fidelity with which he prosecutes his work.

Lawyers, physicians, and certain civil officers are remunerated by *Fees.* This form of compensation originated probably, in the gratuity formerly offered for a service rendered, by the party benefited. Hence there has always been more or less of indefiniteness connected with this mode of remuneration. It is adjusted for each particular service, at rates determined in part by usage and in part by the arbitrary demand of the party rendering the service, or by the good-will of the party served.

From the mere statement of these distinctions, it is evident that the questions respecting *wages* involve the most difficult problems of distribution, and must therefore command our first and chief attention. Mr. Francis A. Walker, after limiting the wages-class to "persons who are employed in production with a view to the profit of their employers, and are paid at stipulated rates," estimates that "of English-speaking people, three-fourths probably, two-thirds certainly, subsist on wages." They compose the class who without resources and defences of their own, stand exposed to the operation of laws which are, in their very nature, fixed, and which work with a kind of relentless severity.

Before attempting to state the laws which govern the rate of wages, we need to notice some important distinctions, the neglect of which often causes error and confusion in the discussion of this subject.

Nominal and Real Wages.—The rates of wages are usually stated in terms of money. This money-rate is what is meant by *nominal* wages. But, as actual remuneration of the hired laborer, wages are measured by the necessaries, comforts and luxuries of life which they will command. *Real* wages are so estimated. It is of the highest importance to observe this distinction, in comparing the rates of wages in different countries, or at different periods. The money which a skilled mechanic in England receives for a day's work is much less than that received by one of the same class in the United States. But actual investigation shows that the English workman's smaller pay will bring him the larger quota of those things which minister to the enjoyment of life. In our country, the wages of a common day-laborer in 1843, were one dollar per day; in 1865, the nominal rate was doubled. Yet the low rate of 1843 would secure for him full one-third more of articles necessary for his comfort, than the double rate of 1865.

Several causes operate to produce this difference.

1. The most influential of all is *the Fluctuations in the purchasing power of money,* under sudden expansions and contractions of the currency. An increased production of gold and silver, at times, has added suddenly to the money of the world. In former times, sovereigns used to debase the coin of their realms, in order, for their own advantage, to make out of the same weight of gold and silver, twice as much money. And in modern times, the invention of paper substitutes for coin, especially when issued as inconvertible government-notes, has done more than all else to produce sudden expansions of that which passes as money.

Any such increase of current money soon shows itself in a diminished purchasing power, that is in enhanced prices for all commodities. The worst mischief of such fluctuations falls upon those whose living depends on wages.

It may be said that *with the advancing price of commodities, wages also rise.* This is true to some extent, but ordinarily, wages do not rise in full proportion to the advance of prices generally. The change in wages comes lagging slowly after the other changes; it stops considerably short of the full expansion in other matters; and the reaction which brings a decline, is apt to affect wages sooner than the prices of merchandise. The reason for this difference is well stated by Mr. Amasa Walker thus:

> "For nearly all products, there is both an actual and speculative, or a present and prospective demand; for labor there is only an actual present demand. When business begins to be particularly prosperous, there is a general demand for all kinds of merchandise, and prices gradually begin to improve. This, at once, occasions a *speculative demand;* for to buy will be to realize an advance; the larger the purchases, the greater the amount of the profit. Every operation pays. The rise continues until every article bought and sold as merchandise goes up to the highest point. *But no one speculates in wages.* No one can, if he would, buy a hundred thousand dollars worth of labor and hold it for an advance, as he can of flour, sugar or tea. On the other hand, when the tide turns, the fall of merchandise is broken by the disposition and ability of the owner to hold his goods and, as far as possible prevent loss; but the laborer cannot do this—he must sell his services at once for the most they will bring."

These views are somewhat qualified by the fact that speculation, for the time, stimulates production so as to increase the demand and raise the wages for labor. This, however, is an *unnatural stimulus,* which leads inevitably to over-production. In the day of highest activity and apparent prosperity, laborers fail to get their full share of the advantage, and when the reaction comes, there is no alternative but that many forms of production must be curtailed or wholly suspended, and multitudes of laborers must be thrown out of employment altogether. Thus, the financial revulsion of 1873, which was a necessary consequence of the speculation and over-production incited by the inflated currency of the ten years previous, brough its saddest results on the class who depend on wages, cutting off the means of living with many, and perpetuating the distress through a series of years following.

2. Another cause producing a difference between nominal and real wages is found in the *Forms of Payment.* While wages are generally *reckoned* in money, they are not always *paid* in money. Almost everywhere, unmarried agricultural laborers have their board counted in as a part of their wages. In some countries farm hands are paid almost entirely in kind, that is in a portion of the products, in the rent of a cottage, the use of a patch of ground for themselves, the privilege of keeping a cow or a pig and certain perquisites such as the hauling of peat or coal. With some manufacturing establishments, a store is connected and a considerable part of the wages of employés is paid by orders for goods, whose price and quality may be such as materially to reduce the wages when measured by necessaries and comforts actually obtained. In our country, this "truck-system" is much less common now than it was fifty years ago. In France, the artisan classes have always resented it, and in Germany, the Industrial Code of 1869 forbids this form of payment. It is to be hoped the day will soon come when it will be everywhere abandoned.

3. The greater or less *Regularity of employment* also creates a difference between nominal and real wages. This is affected by the nature of the occupation, as in agricul-

ture, brick-making, house-building, the fisheries and the like. In a climate like ours, some parts of labor in these callings, are precluded at certain seasons and are crowded at others. In some Catholic countries, the observance of numerous holidays causes considerable irregularity of employment. The concentration of labor in large establishments for production on a large scale, with the methods of modern trade, almost inevitably causes alternations of periods of great activity with periods of dullness and depression. In this connection must be noticed also, the interruption to regular industry caused by strikes. In illustration of these irregularities and of their effect on wages, we present the following facts stated by Mr. Baxter, an English writer. Speaking of the building-trades, he says:

> "These trades form a whole and include carpenters, bricklayers, masons, plasterers, painters and plumbers, and number in England and Wales about three hundred and eighty-seven thousand men above twenty years of age. It is only the best men, working with the best masters, that are always sure of full time. These trades work on the hour-system, introduced at the instance of the men themselves, but a system of great precariousness of employment. The large masters give regular wages to their good workmen, but the smaller masters, especially at the east end of London, engage a large proportion of their hands for the job, and then at once pay them off. All masters, when work grows slack, immediately discharge the inferior hands and the unsteady men,—of whom there are but too many among clever workmen,—and do not take them on again until work revives: In bad times, there are always large numbers out of employment. In prosperity, much time is lost by keeping "*Saint Monday*" and by occasional strikes."

All this clearly shows that the real remuneration of the laborer must be estimated, not by the wages of one day of the week or one month of the year, but by that rate, as qualified by the regularity or irregularity of his employment. In reckoning annual earnings, it is common to count three hundred working days to the year. For a majority of occupations, however, this is probably too high an estimate.

4. In determining the difference between nominal and real wages, regard must also be had to *the Duration of the power to labor*, that is to the number of years during which the man can expect to have strength and vigor to earn wages. Vital statistics indicate that this period varies considerably with men of different nationalities,—in different climates,—and in different occupations. To know the real compensation of labor, we must estimate the wages of a lifetime. Where the conditions of labor involve early mortality or disability, as is the case with almost all work in mines, the life's earnings are proportionately reduced. The rate of nominal wages is generally somewhat higher on account of such special exposure, but seldom is the increase at all commensurate with the risks involved.

The extensive use of labor-saving machinery introduced within the last fifty or sixty years, has no doubt tended to depress the nominal wages of labor. But the same cause has very greatly multiplied and cheapened the necessaries and comforts of life; so that real wages now reach a higher measure than formerly. The laborer of to-day enjoys a hundred comforts which either were not known a half-century ago, or were then quite beyond the reach of persons of his class. He may well congratulate himself on his improved condition. At the same time, however, the fact of his having enjoyed these things so freely, makes them seem necessities and aggravates the hardship of being, in any degree, deprived of them.

Nominal and Real Cost of Labor.—In presenting the previous distinction, wages were considered from the *laborer's* point of view. The question then was, what are the wages at a given rate, worth to him who earns them? We need to look at the same thing also from the *employer's* point of view. Now the question is what is the labor performed worth to him who pays the stipulated wages? We shall see that in this case, as in the other, the rate of wages, by itself, is not a certain exponent of real value. Mr. Brassey, drawing his conclusions from the actual experiences of his father in conducting vast industrial operations, especially the building of railways in many lands, maintains unhesitatingly "that daily wages are no criterion of the actual cost of executing works or of carrying out manufacturing operations. On the contrary, experience teaches that there is a most remarkable tendency to equality in the actual cost of work throughout the world."

The fact is simply that labor, as an element of cost in production, must be estimated not by the time occupied, nor by the rate of wages paid, but by *the efficiency of the labor itself.* With respect to this element of efficiency, men differ very greatly. Mr. Brassey states many facts illustrating this difference. We give two or three of them:

"On one side of a building, a London bricklayer was employed at five shillings and sixpence a day, and on the other, two country bricklayers at three shillings and sixpence a day. It was found by measuring the amount of work performed, without the knowledge of the men employed, that the one London bricklayer laid, without undue exertion, more bricks in a day, than his two less skillful country laborers." "On the Grand Trunk Railway (of Canada), a number of French Canadian laborers were employed. Their wages were three shillings and sixpence a day, while the Englishmen received from five to six shillings a day, but it was found that the English did the greater amount of work for the money." "By a very careful inquiry, at a large iron establishment in France, it was ascertained that forty-two men were there employed to carry out the same amount of work which twenty-five men were able to do at the Clarence factory on the Tees."

There are many other like facts that show clearly that the different wages paid in different countries for a day's labor, are no trustworthy index of the real cost of labor. Often it is the best economy to employ men at the highest wages, because from superior skill or greater energy, they will achieve most for the money. The difference is quite generally overlooked, when, in discussing the advantages of a protective tariff, a comparison is instituted of the rates of wages in different countries. It is often wholly disregarded in the demands which laborers endeavor to enforce by strikes. It sometimes happens that, even where there is a great demand for labor, many persons are unable to obtain employment, because the demand is not for certain hours of nominal work, but for labor that is intelligent, trained, efficient. As Mr. F. A. Walker says, "It must be held constantly in mind that *the value of the laborer's services to the employer is the net result of two elements, one positive, one negative, namely, Work and Waste.*" The latter term includes breakage, the wear and tear of implements and machinery, the destruction or impairment of materials, and the cost of supervision and oversight. The more delicate the machinery and the more costly the materials, the greater is the liability to waste by unskilled hands.

The Various Causes to which these differences in industrial efficiency may be referred are grouped by Mr. Walker under six heads. In stating them, we adopt his terms and follow his order with very brief expansion.

1. *Peculiarities of stock and breeding.* Men of different races are found to differ greatly in physical structure, in height, weight, muscular strength, nervous force and spirit. The development theory of modern science, no doubt properly, refers this difference to certain physical causes, such as local climate, customary food and habits of

life, continued through many generations. Certain social and industrial causes are also to be recognized. The standard of height in the French army has been reduced during the eighty years, since 1793, from five feet four inches to five feet one and one-half inches. This is accounted for by the fact that for more than two generations, the strong, healthy, brave men of the nation have been drawn off to the wars and used up, leaving the feebler males at home to propagate the stock. The employment of women and children of tender age at hard labor and under great exposure, in mines and factories, must after a generation or two, depreciate the stock. Peculiar characteristics thus formed become hereditary, and are perpetuated in individuals whose circumstances and habits are altogether changed.

2. *The Meagreness or liberality of Diet.* Food is to the human frame what fuel is to the steam-engine. "What the employer will get out of the workman will depend very much on what he first gets into him." The case demands only food, in quality nourishing, and in quantity sufficient to keep the man in the best working condition. Luxuries and abundance beyond this, mar digestion and diminish physical power. This matter is carefully studied in the treatment of our working animals; why should it not be also regarded with respect to our working men? In this connection, the matter of clothing is an important consideration; for clothing and food help each other in maintaining the necessary warmth of the body. A sheet iron jacket is put around a steam-boiler to prevent the waste of heat; is it any less a matter of economy that a woolen jacket be put about the body of the laborer for the same purpose?

3. *Habits voluntary or involuntary respecting cleanliness of person and purity of air and water.* Whatever depresses

the vitality of a man must diminish his efficiency for labor. What can more effectually impair the quality of the blood and depress the nervous force than to live as millions of laborers do, crowded with their families in narrow, filthy, unwholesome tenements, where the bright sunlight is excluded and the water they drink is contaminated with sewage matter, and the air they breathe is charged with noxious poisons? Sad and sickening are the reports of parliamentary investigations in England on this subject. We congratulate ourselves that, in our country, working-men, especially those connected with our large manufactories, are better provided for. Yet the evil referred to is growing upon us, particularly as respects laborers of the lowest grades in our great cities. Philanthropy and economy alike should prompt the use of all proper means to guard against this evil. Employers may do something to secure decent homes for their workmen as well as to make wages just. But as shiftlessness and intemperance are prime causes of the degradation of labor, so the chief remedy and safeguard must come from laborers themselves cultivating self-respect and will-power for self-restraint.

4. *The general Intelligence of a laborer* goes far to determine the measure of his efficiency. A man who has learned to read and write, has thereby improved his capacity to learn a trade or any particular form of work. Men intelligent enough to go beyond the mere mechanical routine which occupies their day, so as to understand the object to be attained and the reason for every step of the process, need less superintendence than the dull plodders who never think for themselves. Intelligence in the laborers may also save much waste of materials. This is an important consideration, especially in those branches of mechanical industry in which the outlay for materials far exceeds the amount paid for wages. Many, through sheer

ignorance, are utterly incompetent to use delicate and intricate machinery, which properly managed greatly enhances the profit of production. Intelligent minds, while busy with such machinery, have their invention quickened to devise new improvements. All these considerations clearly show that intelligent workmen employed at high wages diminish instead of increasing the real cost of labor, measured by the results produced.

5. *Technical education and industrial environment* add much to the efficiency of labor. The reference here is in part to thorough apprenticeship, but more to the inherited instinct and the unconscious tuition acquired by contact and familiarity with well organized systems of industry, vigorously maintained. "In some communities, a child is brought into the world half an artisan." In association with good workmen and their operations, a boy grows into habits of accurate observation and of manual dexterity, and learns the best part of his trade before he begins his regular apprenticeship. Then, he falls naturally into his place in the organized routine of daily labor, and quickly acquires expertness, despatch and endurance. Every well organized and administered manufactory is thus a school, an educational institution for training all engaged and all who come in contact with it, to habits of subordination, regularity and co-operation, the prime elements of efficiency in labor.

6. *Cheerfulness and Hopefulness in labor,* growing out of self-respect and social ambition, and the laborer's personal interest in the result of his work. For the lack of these elements, slave labor is always inefficient and costly labor. No pressure of a master's authority, no driving under the lash can bring out such results of labor as come from the springs of cheerfulness and hope in the

breast of the worker who respects himself as a free man, and whose personal interest in the results of his toil gives wide scope to a noble ambition to make the most of himself. The wages of free laborers may be so low as to reduce them almost to the level of slaves. But this always involves in the long run, a ruinous reduction also of the profits of production. It is for the interest of the employer no less than for that of the laborer, that wages should be such as to promote cheerfulness and inspire hopefulness; giving him who depends on them a chance, by careful thrift and determined energy, to better his condition as the years of his life run on.

The Leading Considerations which determine the rate of Wages.—According to our definition, wages imply always a contract, a stipulation between two parties —a promised reward for promised services. The two parties come together for their mutual advantage, yet, in making the contract, each looks at his separate interest. The wages agreed on must have some regard to each of these separate interests. Neither will be the absolute and all controlling consideration to determine the result. Other considerations may have more weight than either or both, but each of these will have some weight and claim some regard. Looking at the laborer's interest,

1. The first thing to be considered is the *Cost of Living*—what is necessary for the support of the laborer, according to the standard of his class. Obviously, the individual laborer must have something to live on which will keep him in bodily health and vigor, fit for work. But this is not all. Man is short-lived. The species is kept in existence by succession. Children must be reared. To keep the number of laborers the same in any country, wages must be sufficient to provide food and clothing for man and wife and at least two children, until they are

able to support themselves. Something further must be added to provide for the laborer in his old age, when he is too feeble to work. More than all this is needed, for nature has ordained that the human species shall increase at a rate more rapid than that of two children to each married pair. Hence, in the settlement of wages, regard must be had to the rearing of such a number of children as ordinarily, in the course of nature make up one family.

This consideration alone would determine what some writers call *Necessary Wages.* David Ricardo writing in 1817, propounded the theory, which was for many years quite generally accepted, that "*the natural price of labor* depends on the price of the food, necessaries and conveniences required for the support of the laborer, so that with a rise in the price of food and necessaries, the price of labor will rise; with a fall in their price, the natural price of labor will fall." There is a measure of truth in this view. This is a consideration which must affect wages. But this is not, as Ricardo's theory represents, the *dominant* factor in settling the contract. It may be uppermost in the mind of the laborer, as he comes to the negotiation. He will naturally urge his claim for a compensation which will not merely keep him and his family alive, but which will enable him to multiply comforts and improve their condition. The main force of this consideration is however, to define a limit below which wages cannot be set, to continue long, without producing misery, a fearful mortality of children, and a sad waste of the very nerves and sinews of effective industry. Nevertheless, that which is all in all to the laborer, has little place in the thoughts of the employer. Looking now to his interest,

2. *The second thing to be considered is the Value of the Products*—what returns will be given for the capital which engages labor and for the abilities, time and responsibility

involved in managing the business. Only the hope of such reward draws capital, the fruit of past labor, into union with present labor. If that hope is cut off, capital is withdrawn, wages cease and the industry is suspended. A person who has wealth embarks a portion of that wealth, as capital, in some enterprise of production, not because he desires to keep it employed, but because he desires to increase his store by the profits of production. The employer's ability and his readiness to pay wages depend on the measure of these profits. With increased profits he can afford to pay more wages. With diminished profits, he is prompted to make new stipulations for reduced wages. When the business yields no profits, or involves loss, his study is how to close the business and extricate his capital at the least possible sacrifice. The only exception to this course is when the unfavorable result is due to some temporary cause, and regard for his honor as respects engagements already made, and the hope of better times prompt him to continue his business even at a loss. It stands fixed as a general law, that the employer hires his workmen and adjusts their wages with reference to his own profit from the products of the business.

It cannot be said, however, that this alone, any more than that previously stated, is the all-controlling consideration. It is one of prime importance in the view of the employer as he enters into the contract. Its chief force is to define a limit on the other side,—a limit above which wages cannot rise to continue long, without causing capital to withdraw and wages to cease altogether on the suspension of production. The laborer comes to the negotiation pressing his demand for such wages as he deems *necessary for his support.* The employer comes offering such wages as he thinks *the profits of the business will enable him to pay.* The one seeks as large and liberal a support as he can get, and so sets his mark for wages as high as possible. The other seeks as large and munificent profits as he can secure and so sets his mark for wages as low as possible. The actual agreement will strike a point between the two, to be definitely determined by considerations not yet named. These two considerations simply determine the minimum limit, below which for the long run, wages cannot fall, and the maximum limit above which for the long run, wages cannot rise. *The minimum limit is the rate necessary for the support of the laborer and his family. The maximum limit is the rate which will leave to the employer, out of the profits, a fair return for the use of the capital and for the care and responsibility of management.* No lines can be drawn absolutely fixing these limits for all cases. They will ever vary with circumstances. It will always be an open question with the laborer, how little he will try to live on, and with the employer, with how little profit he will be content. But like certain formulas of mathematics, the statements indicate limitations, fixed in the nature of things, within which the equation of wages will be found.

The Wage-fund Theory as it is called, demands some notice in this connection. This theory is summarily stated by Mr. J. S. Mill, as follows :

> "There is supposed to be, at any given instant, a sum of wealth which is unconditionally devoted to the payment of wages of labor. This sum is not regarded as unalterable, for it is augmented by saving and increases with the progress of wealth ; but it is reasoned upon as, at any given moment, a predetermined amount. More than that amount, it is assumed the wages-receiving class cannot possibly divide among them ; that amount and no less they cannot but obtain. So that the sum to be divided being fixed, the wages of each depend solely on the divisor, the number of participants."

As embodying the fundamental principle that capital is a prime factor in all productive industry, so that laborers must be idle till capital is furnished for them to work upon and to work with, and the rate of wages must depend on the ratio between the amount of capital and the number of laborers seeking employment, there is an element of truth in this theory. But as a solution of the problem of wages, it is unsatisfactory and misleading. For its basis is a purely ideal supposition. As a palpable fact, the supposed fund has no existence. If there were such a general, national fund as the theory defines, it must be an aggregate made up of smaller funds of the kind possessed by the individual employers of the nation. But what employer can ever point to a specific portion of his capital which he feels that he must expend in wages?

That which draws out wealth to be joined, as capital, with labor in production, is *a hopeful opportunity for increasing wealth by the profits of production.* In starting an enterprise, a certain amount of capital must be provided. The bulk of this capital is put into what English people call the "*plant,*" that is fixtures, buildings, machinery, etc. A portion is also used in the purchase of a first stock of materials. For wages, it may be that a small portion of the original capital will be reserved, but it is only just enough to support the laborers in the outset, till the avails of the products come in. More likely what is needed for wages will be borrowed from the bank, in anticipation of coming sales. After the returns begin to appear, they are thenceforward depended on, first for the payment of wages, then to keep the plant in repair and to replenish materials, and finally to reward the capitalist. According to the measure of the profits, the work will be extended, new laborers will be called in and higher wages will be paid. The manager recognizes no such thing as a wages-fund, but he does most carefully consider the *profit and loss item* on his balance-sheet.

At this present writing in 1877, we have seen for two or three years much capital idle, locked up in factories which are closed, and thousands of laborers without work and without wages. In other cases, the business is still run on reduced time and reduced wages, with no profit. At the same time, we have seen the banks overloaded with a plethora of money, whose owners are most anxious to find some way of putting it into profitable investment. This condition of things is explained by the fact that from certain causes, which we will not now attempt to name, industry failed to yield its customary and expected returns. There were no profits, and hence employers could pay no wages or could pay but a part of what they had previously paid. They could bear, for a time, to lose the remuneration of the capital invested in the mills, but to add to this the steadily exhausting payment of wages would be ruinous. They dare not borrow and the banks dare not loan money to be so used. Now it makes the case no plainer,—does it not rather confuse matters, to say that somehow the financial revulsion curtailed the *wages-fund?* Is it not more philosophical and more in accord with common sense to say that wages fail or decline because *industry fails to yield the necessary profit?* This is the plain matter of fact. Ideal funds, ideal divisor and dividends, ideal averages cannot clear up the problem. What has been, must be, whenever, for whatever reason, values produced fail to show a sufficient surplus above the values consumed.

3. What has been the *Customary rate of Wages* is a consideration of some force in determining the rate that shall be. This means no more than that there is always a presumption in favor of existing usage, which on one side or the other may be more or less effectually pleaded in the negotiation between the parties. This consideration always resists a contemplated change, and when necessity compels a change to be made, it essentially modifies the

degree and the time of that change. Thus when in 1865, an inflation of the currency in the United States had raised prices and increased the cost of living, and had at the same time stimulated production and increased the value of its returns, both necessity on the one hand, and ability on the other called for an advance of wages. But employers clung tenaciously to the customary rates and yielded very slowly and reluctantly to the call, and after all, stopped short of advancing wages in full proportion to the enhanced prices and profits. Ten years later, we find a condition of things just the opposite. Both profits and the cost of living were greatly reduced, and employers were constrained to reduce wages accordingly. But then the laborers clung to existing rates and resisted the reduction, in many cases with violence. This tendency always appears qualifying the effect of other considerations. It is like the law of inertia in physics. It resists or impedes all changes of wages, and though an incidental, and comparatively unimportant consideration, it needs to be recognized and regarded.

4. *Competition is beyond all others the controlling consideration in determining wages.* We cannot say of this that it is absolutely controlling. For the considerations previously named must be to some extent respected. But we do recognize competition as more influential than any or all of these. It cannot nullify, but it does, in a measure, overbear them.

Competition is the endeavor of two or more persons to gain the same thing, at the same time. In this matter of wages, it appears in either or both of the parties to the contract. Many laborers are seeking wages and good wages at the same time. Many employers are seeking profits and large profits at the same time. Competition becomes active just in proportion to the comparative numbers on either side. If the number of laborers is just sufficient to do the work desired by the employers, on terms satisfactory to both parties, there will be no competition on either side; but that balance is seldom realized, and never stable. Whenever it is disturbed, competition sets in. If the number of laborers is large in proportion to the employment offered, the competition is active among the laborers. Each rather than lose his chance for wages, will lower the price demanded for his labor. If the number of employers and the amount of capital they command, is large in proportion to the number of laborers, the competition is active among employers. Each rather than lose his chance for anticipated profits, will raise the price offered for the labor he wants. Thus, as Mr. F. A. Walker states the case, "Each laborer will sell his labor at the highest price which any employer can afford to give, since the employers are in competition among themselves for labor. Each employer will get his labor at the lowest price at which any laborer can afford to sell it, since the laborers are in competition among themselves for employment. *The lowest price at which any laborer will sell his labor, is thus the highest price which any employer can afford to pay.*"

If for any reason, the wages in a particular branch of industry rise above the ordinary rate, a speedy rush of laborers into that employment intensifies competition till the wages are brought down. If, on the other hand, a particular form of production yields profits above the ordinary rate, there comes a rush of employers with their capital into that branch of industry and in their competition with each other, wages are raised, products are multiplied and cheapened till the profits are brought down to the ordinary level. The principle of competition tends to adjust to each other the natural increase of population on the one side, and the natural increase of capital on the other, so as to keep the ratio uniform and hold wages steadily in an equilibrium most favorable to the interests of all. *The tendency* is manifest, though a perfect result is hindered by *the inherent difficulty of transferring laborers* from one place or occupation to another, as compared with the facility with which capital and commodities are transferred.

If competition were universally *free and fair*, no doubt present inequalities of condition would be removed, and the burden and the benefits of human industry would be equally distributed. Conflicting interests would be harmonized by it, so as certainly to secure the greatest good of the greatest number. It would adjust the customary rate of wages at that golden mean which would ensure a comfortable support to laborers and adequate profits to employers. Something like this is the theoretical ideal of Political Economy toward which its principles tend. As the science is more fully unfolded and more freely applied to all industries, and all classes, competition does become more free and fair, and more efficient, as the grand regulator of production, distribution and exchange. But to study the practical problems of human industry, especially this problem of wages, on the assumption that this ideal is or can be made actual, is as absurd as it would be, in practical mechanics, to take as actual facts, the mathematical ideals of points and lines and forces and motions, and proceed to plan an engine without regard to the grossness of matter, or the resistance of the atmosphere, of friction and of gravitation. As the world goes, self-interest pushed to the extreme of *over-reaching selfishness*, is continually interfering with competition to make it neither free nor fair. Thus, in the actual working of competition, falsehood, trickery and fraud are introduced in manifold and subtle forms. In the intense struggle of conflicting interests also, high-handed measures are adopted to restrict or rule out competition, because in its normal working, it hinders selfish greed from attaining its ends.

Hence, the *Combinations to resist competition*, which are entered into on either side, demand some notice in this connection. Combinations of laborers with respect to wages take two forms, which though often blended, may be best presented separately. They are *Strikes* and *Trades-unions.*

A Strike is a mutual agreement of a number of workmen to demand of their employers certain terms, and to stop work till the demand is granted. The right of a laborer to define the terms of the contract with his employer so as to secure his own interest cannot be questioned. That involves also the right to refuse to labor except on those terms. Neither can the right of numbers, having common interests, to combine in counsel and effort to present and maintain their claim be questioned, so long as they do not interfere with the freedom of others. When, however, the striking party uses force either to compel others to join the combination or to prevent their working except on the terms which they dictate, there is a monstrous violation of a most sacred right,—a right which should be ever dearest of all, to the laborer,—*the right to do what he will with himself, his time, his strength, his skill.* Yet to be effective, the strike must suppress all competition. That is its chief aim. It must bring all competent to perform the labor in question into the combination, or prevent those outside from coming in to fill the places vacated by the strikers. Hence strikes almost inevitably lead to a violent outrage upon the most precious right of freemen. Turgot, the great financial minister of the French King Louis XVI., said, a hundred years ago, "God in giving to man wants, has made the right to labor the property of all men, and this property is the first, the most sacred and the most imprescriptible of all."

Apart from this great wrong, a strike may do some good service as a strong and determined assertion of a reasonable claim. The claim is *reasonable* only when the necessities of the laborers require and the actual profit of the industry permits the increase of wages, or whatever of better terms is insisted on. In such a case, the measure may prove successful and yield an advantage sufficient to compensate for the temporary serious sacrifice involved. If, however, the terms demanded will so reduce or endanger the profits as to leave no inducement for the employer to devote his energies and capital to the business, the effect of the strike can be only disastrous to all parties. It is evident, therefore, that *strikes cannot absolutely control wages.* There is a chance that in occasional instances, they may yield a real benefit. But the probabilities are, as illustrated by many facts, that they will be attended with grievous wrong and in the end, aggravate, rather than relieve the evils which prompt them. Mr. Brassey says, "*Strikes against a falling market always fail.*"

Trades-unions are combinations of laborers of particular trades, in permanent organizations, to promote the general interests of their respective fraternities. These organizations had their prototype in the "*guilds*" of the middle ages. Then the condition of society was such that no rights were sacred or safe except as they were defended by the strong arm of might, and all privileges were held under a law of restriction and isolation. Each guild stood for itself against other guilds and against the community generally. Trades-unions of to-day appear in a better character. They aim at a variety of objects for the mutual benefit of the members, such as contributions for the relief of the sick, disabled and distressed, and measures to promote sympathy, social enjoyment and some mental culture.

In this aspect, they render beneficial service, and are worthy of praise and encouragement.

But often, they attempt also, to use their power of association with some accumulated money-power, to regulate the rate of wages against the normal action of free competition. They do this in two ways, *by promoting and sustaining strikes* and *by restricting apprenticeship.* A strike under the direction of a trades-union, is likely to be better organized than an independent strike, more wide sweeping, more persistent, and in its first stages more restrained from violence. But according to actual experience thus far, it is liable to insist on unreasonable demands, and in the extreme issue, it becomes uncontrollable and runs into wild and disastrous excesses. In such movements too, the union almost necessarily aims to establish *uniformity of wages, irrespective of the varying abilities and efficiency of different workmen,* which is an injustice to the superior artisans as well as to employers.

The attempt arbitrarily to limit the number of apprentices to any trade, is directly opposed to free competition and aims simply at establishing *monopolies.* It involves therefore, the injustice and mischief which are inherent in the very principle of monopoly. It is ever a forced exaction on the whole community for the benefit of a few. If the measure could be carried out universally, it would simply make every trade a monopoly and set the various branches of business in antagonism with each other, so as seriously to obstruct all industry. Mr. Brassey, speaking of this part of the policy of trades-unions says, "Their influence has too often been essentially illiberal, antisocial and calculated to establish among the industrial classes of the country, *that subdivision of Caste* which has been the great curse of India." Hence, we may add, this policy is in its very nature self-destructive and impracticable. The most that can be attained is a partial and temporary advantage, to be more than counterbalanced in the reaction which is sure to come.

It is further to be observed that the maintenance of these trades-unions involves *a heavy tax on the members.* The funds thus raised and the affairs of the union are put into the hands of leaders who gain their official positions mainly by reckless declamation against the rapacity of employers and by loud professions of sympathy with the wrongs of the laborers. These leaders are apt to exercise their power with despotic authority, and are held to slight responsibility for the disposal of funds. They have thus a personal interest in retaining or exercising their offices, which may be quite at variance with the real interests of the body of workmen. When an issue is fairly joined, public interests are apt to be recklessly sacrificed, until public opinion which naturally inclines to favor the wage-receiving class, is turned against them, and the power of the government is called to interpose. Then the movement breaks down, having effected only loss and damage to both parties,—a damage most severely felt by the laborers, the party least able to bear it. All this was clearly illustrated in the disastrous action of the railroad brakemen and firemen in 1877.

If the prominent object of trades-unions were, instead of directly resisting competition, *to keep competition free and fair;* and if, in the furtherance of this object, the association would carefully study the essential conditions of the wages-problem, and inform themselves concerning the actual state of their respective trades, with the means of improvement for the benefit of all, employers as well as employés, they might be made to secure valuable purposes. Then, the advantages of association and the power of combination would conduce to the real and abiding prosperity of all productive industry.

On the other side, *Combinations of Employers* are often formed with a similar aim, that is, to resist the natural working of competition, for a supposed advantage of their own. Such combinations sometimes aim to regulate the exchange of products by an agreement of those engaged in a particular trade not to sell below a certain price. This simply creates a form of monopoly in the general market of commodities, and belongs to the department of exchange. We have now to consider these combinations only as they attempt to regulate *the rate of wages* by agreements not to pay above a certain rate. It must be admitted that every man who possesses wealth has the right to do what he will with his own. He has the right to say what portion of it, if any, shall be employed as capital in production. And as an employer of labor, he has the right to say what wages he is willing to pay for certain services. A number of employers have also the right to unite for counsel and action with respect to their common interests, and the matter of wages may properly be considered in such associations, provided they lay no constraint upon the freedom of other people to exercise similar rights. The question before us is one, *not of abstract right but of what is feasible and wise.* Can such combinations arbitrarily determine rates of wages? Is it wise for them to attempt such control?

It is obvious that, to be effective, the combination must embrace all who are engaged in the particular industry. This is not an easy thing to accomplish. Any who remain outside the combination may overbid for labor, and so open the door for renewed competition. Much more difficult is it, nay, impossible to hold all the capital of a country bound by the rules of the combination. If the wages agreed on are such as to insure a margin of profits above those of business generally, free capital will rush in to engage in the industry, and make its own terms for labor, just as certainly as air will rush in to fill a vacuum, or as water will flow to restore its equilibrium, disturbed. These considerations preclude the success of such attempts to dictate wages, except for temporary emergencies, as when laborers are thrown out of other employments and can be easily substituted for those who refuse to work for the wages offered, or when for some reason the actual employés are unable to change their situation.

The attempt to control wages by the arbitrary dictum of such combinations against the normal working of competition is *unwise*, even if it could be successful, because, more than anything else, it produces the impression that capital is tyrannizing over labor. This causes suspicion and discontent, and incites antagonism and combinations on the other side. Thus, the cheerful coöperation of labor and capital essential to prosperous industry is effectually prevented.

The true function of such associations is to secure a better understanding of the laws of production and of the actual condition of particular branches of trade and of the causes, manifest and hidden, which vary the proceeds of industry. Associations of employers generally embody more intelligence than those of laborers. More of reasonable discussion and of broad, fair-minded conclusions may therefore be expected of them.

Our conclusion is then that combinations on either side, so far as they attempt to resist or prevent free competition, *cannot, in the long run, materially influence the rates of wages.* If, however, representatives from both sides could often and freely meet for mutual explanations, candid discussions and the communication of information concerning the labor-market and the market for products, many evils that spring from vicious, fraudulent and perverted competition might be averted and both wages and profits would be more permanently settled on the basis of even and stable justice to all.

5. *The Golden Rule of Christ, "Whatsoever ye would that men should do to you, do ye even so to them,"* presents another consideration of some weight in determining wages, which Political Economy as well as Christian Ethics may fitly recognize and enforce. This rule embodies a principle which tends to harmonize the action of *self-interest* among men, in all relations. Genuine self-interest as distinct from rank selfishness, culminates in the adoption of this rule. There are pleasing indications that it is, in increasing measure, regarded in the relations before us. In many large establishments like that of Mr. Bright in England, and some large factories in our country, it is made evident that even corporations can have souls, and that employés may perform their labor with heartiness and good-will, for the advantage of employers, no less than for their own. We cherish the fond hope that this rule of wisdom and true policy is destined steadily to gain a wider ascendency, softening animosities, inspiring mutual confidence and effecting genial coöperation, so as to bring out the full power of productive industry in results, larger and more equably distributed than the world has ever yet known.

The general law of wages may be concisely stated thus: *By free Competition, wages are adjusted to the ratio between the amount of Capital seeking labor and the number of Laborers seeking employment; competition itself being modified by some regard to the cost of living, the productiveness of industry, established custom, and the promptings of good-will between man and man.*

CHAPTER XIV.

CAUSES PRODUCING VARIATIONS IN THE REMUNERATION OF LABOR.

Special Circumstances by which Wages are affected.—While the general law stands as just stated, it is found that the rates of wages differ considerably in different employments, These variations spring mainly from causes which vary the intensity of competition in certain cases. They deserve however a brief, distinct notice.

Wages are affected by the ease or difficulty, the pleasantness or unpleasantness, of the employment. When the employment for instance requires great muscular effort, the number of persons who can accomplish it, is comparatively small. This diminishes the supply, and of course increases the price. When this is the case, as men are not usually attracted by the prospect of hard labor, a smaller number apply for this kind of employment. This still further diminishes the supply. Hence, the price will rise, as the wages must be increased sufficiently to overcome this repugnance. On the contrary, when the labor is easy, the number of persons both able and willing to perform it, is increased; thus, the supply is large, and wages fall in proportion.

The same effect is produced by the general estimation of the pleasantness or unpleasantness of the employment. Any kind of industry which, from necessity, is uncleanly, commands higher wages than one which can be performed without interfering with personal neatness. One which is considered disgraceful, can be supplied with laborers, only by paying an unusual price. The business of a public executioner, though not difficult, is disagreeable, and generally considered disgraceful; and hence, in countries where it is made a distinct profession, it commands high wages.

Wages are affected by the Skill required in performing the operation. This arises from two circumstances: *First,* skill can be acquired only by practice and education. This is in itself costly, and is an investment, for which the possessor justly receives a compensation. And *Second,* unusual skill generally supposes some unusual endowment. But in proportion to the rarity of the endowment must be the smallness of the supply, and of course, the rise of price which must be paid for the product.

Wages are affected by the Confidence reposed. Wherever a great amount of capital is employed, it must, to a very considerable degree, be placed in the power of some one or more agents. Hence, if this power be abused, or used unwisely, the whole is liable to be lost. If the manager be careless, he may destroy it by negligence; and if he be dishonest, he may convert it to his own emolument. Now, this union of judgment with incorruptible integrity, is absolutely necessary in many of the operations of production. But such a union is rarely to be found. Hence, while the demand is imperative, the supply is small. On this account, though the wages of such persons are high, it is generally found more economical to employ them at any price, than to intrust important affairs to the incompetent and the vicious. This is one of the rewards which, in the course of human events, God bestows upon wisdom and virtue.

Wages are affected by certainty or uncertainty, constancy or inconstancy of employment. Division of labor requires that a man devote himself exclusively to a single employment, and therefore that his whole emolument be derived from that employment. Hence, when the opportunities of employment are rare, the wages for each particular operation must be greater, since we must pay, not only for the time actually employed, but also for that time which is lost to the laborer, while waiting for employment. We pay more money for riding a mile in a hackney-coach than for riding the same distance in a stage-coach, because the hackney-coachman may stand half a day in waiting, before he finds another customer. Thus also, when a trade can be exercised for only a part of the year, as in the case of a bricklayer, you pay to the laborer higher wages, because he must receive enough to compensate him for the time in which he is obliged to be idle. The crews of whaling vessels are paid partly in shares of the oil taken. Their pay for a successful voyage must therefore exceed ordinary seamen's wages to balance the occasional loss when the ship comes home "clean" or without any oil.

Another circumstance which affects the price of wages, is the certainty or uncertainty of success. In the ordinary avocations of life, if a man acquire the requisite skill, he will almost invariably find employment. In the professions it is not so. Those who have prepared themselves at great expense for the practice of a profession, unable to find employment, sometimes relinquish it for another pursuit. When such a risk exists, the wages of labor should be greater, for the laborer is entitled to a remuneration for the risk of this loss of time and of capital.

These are presented by Adam Smith, as the principal circumstances on which, irrespectively of the influence of capital, the price of labor depends. It will be at once seen that they are susceptible of very great variety of modification and combination, and that frequently, several of them must be taken into the account, in order to explain the reason of the high or low price of any particular form of labor.

The Remuneration of labor by Salaries, Commissions and Fees, while governed to some extent by the principles of wages, involves also some peculiarities which must be mentioned. Generally the labor which is thus compensated is of a kind that requires both *superior natural gifts and special and expensive education.* It is also true of it that, on the one side, *personal character and reputation*, and on the other, *the respectability, dignity and permanence* of the service are estimated as of much consequence. These considerations more or less rule out ordinary competition, and put the mutual contract, in each case, on special grounds.

The whole number included in the classes whose labor is thus compensated, is small compared with the great body of those who receive wages. Yet to the few so favored, a large share of the proceeds of industry is actually distributed. At first view, this looks like a grievous injustice. But it must be remembered that all private interests are promoted when public affairs are guided by *men of ability and integrity*, and that *a wise and vigorous executive administration* is all essential to make any business profitable. Wages must come ultimately out of the proceeds of the labor done, and the amount of these proceeds depends much on active invention and efficient management. Hence it is for the advantage of every ordinary laborer that the places of special trust above him be filled by men of capacity well trained. Such men are comparatively few. They are wanted everywhere, and therefore they can, to a great extent, make their own terms of service. At the same time, it is good economy, as we have seen in a previous chapter, to pay the price necessary to secure such service.

In mechanical industry, the qualifications which set one and another above the wage-receiving class, are often brought out in *self-made men* so called—men who begin in the lowest rank of laborers, and reveal their rare endowments under a process of self-development, as opportunity is offered. Thus George Stephenson began his industrial career as an engine-boy at the lowest wages. Slowly and steadily, as his natural aptness found opportunity to exercise itself, he rose in grade as a workman, until at the age of thirty, he was made an engine-wright at Killingworth colliery, at a *salary* of one hundred pounds a year, when he declared that his fortune was made. And so it was, but in another sense than he dreamed. For that position brought him into connection with the first efforts made to construct a locomotive-engine, and soon his latent genius flashed out in those splendid achievements which gained for him the title of "*the father of railways.*" For the services of his later years, he received munificent remuneration. But that seems of little account compared with the benefit conferred on all departments of industry and on the civilized world by the fruits of his inventive genius and trained judgment. One such eminent example quickens and encourages the activities of thousands who raise themselves from the ranks to various positions of responsibility, for the advantage of all, no less than for their own emolument.

In other cases, *long years of careful study with the best facilities for education,* give to the man a special preparation for the special service of his life. So it was with Robert Stephenson, the son of George. His father, well appreciating the value of advantages he had never enjoyed, spared no expense to add to the son's inherited genius for mechanics, the culture and discipline of an excellent education. Enabled thus to start in a position where he commanded a high salary, he pressed his way rapidly on to the highest eminence, as a constructor of some of the most stupendous iron bridges in the world, to a seat in the British parliament also, and to places of honor in scientific associations. He distanced all competitors and was paid a rich reward for his labors, but these labors enriched the world in a far higher degree.

In the learned professions, especially those of law and medicine, a man of *marked ability, trained by thorough education, enriched by varied experience, and having at command the treasures of learning*, receives for his services extraordinary remuneration. When personal liberty and security, or great amounts of property are at stake, all men reason that it is sound economy to employ the best legal talent, at any price. Such men as Webster, Choate and Evarts have retaining fees thrust upon them, more than they desire, and for their own relief are almost forced to sift out the business offered, by high charges. So too, when health and life are endangered by disease, all are moved to seek the best medical counsel. Such physicians as Nelaton, Mott and Parker would be overrun with calls if they did not set their fees so high as to rule out many. In these cases, *acquired reputation* comes in always to enhance the remuneration asked and freely given. That reputation has been gained at the cost of years of careful, faithful, successful practice, and has a corresponding value. It may be that, for a much smaller compensation, the young, talented, well-read lawyer would manage a case as well or better than the old practitioner of note ; but you have no assurance of this, while the other's reputation does give a certain promise of effective service.

Most marked of all is this difference of remuneration in *the departments of Fine Art ;* for it is here that genius brings forth its most brilliant productions, which seem in some cases, almost supernatural. A few lines from the pen of a Bryant or a Longfellow, a few strains from a Jenny Lind or a Kellogg, a painting done by a Church or a Bierstadt, a statue wrought by the chisel of a Thorwaldsen or a Powers, command prices that seem to common folk absurdly extravagant. But these products bear each, some charms, the strokes of genius, which only the gifted few can render,—which are inimitable. Those endowed with the capacity for such work are set above the reach of competition, in the enjoyment of an unrestricted monopoly.

Authors of books are generally compensated by a commission or percentage of the price of each book sold. Often, the actual remuneration received has but little respect to either the genius, the learning or the labor of the author. *The popular taste or want,* and the manner in which the production meets a present condition of the public mind, are often of more account than all other considerations. Thus the richest returns are commonly won by publications which are ephemeral and trifling. In many cases such success seems a matter of mere chance, and one successful hit gives no certain assurance of a second like result.

To account for the high scale of remuneration awarded to the kind of service we have been considering, it is often said that *the expense of time and money involved in obtaining the requisite education, must be compensated* by adding to common wages enough at least, to pay ordinary interest on the original outlay,—also *that success in these professions is uncertain,* and the remuneration must therefore cover the greater risk, so far at least, as to balance the reward of eminent success, against the loss of many by utter failures. These considerations do indeed justify the extraordinary compensation on grounds of equity. But in the actual contract between parties, they are seldom, if ever regarded. The estimated importance of the service or the special desirableness of the product on the one side, and the diminished force or entire absence of competition on the other, prevail to settle the compact.

Custom or some general agreement, formal or informal, fixes rates of remuneration for various grades of service below those of singular eminence. Thus for book-keepers, cashiers, foremen, superintendents of departments, traveling agents, etc., there is recognized an *ordinary rate* of salaries or commissions, with room for some variation out of regard to comparative ability and trustworthiness. In the legal and medical professions, the fees are fixed by a general agreement or understanding, at a scale which is sustained by the "*esprit du corps.*" Where public interests are involved, *legislation* is sometimes called to define the fees that may be collected by legal process. *Personal considerations* also have some weight. A man's relationship to the leading manager of a business, sometimes secures for him special remuneration. Another's long continued, faithful service is justly regarded as having earned for him a right to his position and compensation, against the competition of new and untried men.

In connection with great stock-corporations, an abuse sometimes appears, when the salaried managers, having contrived to control a large majority of the stock, appoint themselves and fix their compensation at their own will. This must be set down as *a purely arbitrary* exercise of power, unrestrained by right or reason. Very often, it involves direct fraud on other stockholders, and leads to ruinous mismanagement. Sound economy and moral integrity join to reprobate such action.

The honor, dignity and permanence of certain positions demanding a high order of talent, are considerations which often make men willing to accept *a less remuneration* than their services elsewhere might command. Thus a lawyer of eminence whose annual income from practice at the bar would be twenty-five thousand dollars, may accept a place for life on the bench of the United States Supreme Court at a salary of only ten thousand dollars. These considerations are of much account in the remuneration of clergymen and teachers. Men in those professions are confessedly underpaid, when compared with men of equal ability and attainments in other occupations. But their offices secure to them social standing and respectability, and their duties are congenial to cultivated minds. But above all these, especially with clergymen true to their high calling, there is *a spirit of devotion to the work of Christian beneficence* for the well-being of mankind, which finds a satisfaction and joy in the service itself; and thus goes far to balance in their estimation, the meagreness of their pecuniary reward.

The Remuneration for Women's Labor in most employments, is less than that of men for similar services. The fact of this difference is apparent on every hand, and the exceptions are few. Is it right or reasonable that it should be so? The answer to this question can be reached only as the reasons which account for the fact are fairly weighed. We attempt therefore a concise presentation of these reasons.

a. It is a prevalent opinion that for miscellaneous labor, women are by physical and mental constitution inferior to men in the qualities essential to highest efficiency. This may be a mistaken opinion, based upon prejudice and confirmed by long usage. Yet so long as it prevails, it will determine practice. We step into a cotton factory, and in the spinning-room we see men employed almost entirely, because women have not the strength needed to handle the jennies. In the weaving-room we find two or three men working with a hundred women. The work is light for all. The women attend the looms as well or better than the men, but it would not be safe to leave the room wholly to their charge, because there come exigencies when some qualities are needed which the woman has not and the man has. This is especially true with respect to the oversight of numbers. For general superintendence, some *masculine* qualities are supposed to be essential. Just so it is in a large public school. For the greater part of the details of instruction, female teachers do as well or better than those of the other sex, but it is the general belief that to work well, the school must have a man at its head. Mothers themselves are distrustful of any large school which has not a man near enough for timely interposition to meet emergencies. To change this general opinion will require something more than an occasional instance of a woman possessing what must still be termed *masculine force and executive ability.*

b. In the order of nature and in the constitution of society, the sphere of activity for most women seems ordained to be in the Home, each the solace and help of a husband, by whom she is supported and protected, and the nourisher and mentor of the children. This is prescribed by nature as the first, simplest and most universal application of division of labor. The numbers of the two sexes are almost precisely equal the world over. As a rule, it is not good for man or woman to be alone. Where marriage is discouraged, there is something radically defective in the structure or vicious in the habits of society. All this bears on the question before us, since it tends to rule out women from many common occupations of productive industry, and to create the impression that it is *unwomanly* to enter them. This impression may run to the extreme of a false delicacy, and so unduly limit the occupations in which women who are thrown upon their own support are willing to engage. But nevertheless, there is, in the very nature of things, some check on their freedom, from this cause.

c. The wages of men are adjusted to the presumption that each has or will have a family to provide for, and those of women to an anticipation that each will in due time, by marriage, be relieved of her own support. A very large proportion of the women who to-day, depend on their own labor, are young persons who are passing, one after another, into new relations, where they are to be cared for by men's earnings. We recognize the hardship which this order of things brings on some women who, in the vicissitudes of life, are compelled by their own labor to support not only themselves but their children, and it may be sick or intemperate and thriftless husbands. But the number of these is comparatively small. The laws of our science, like the laws of material nature, are adjusted, on general principles, to general conditions. Some incidental, occasional distress is produced by their *inflexibility,* and yet that very feature of the laws may be necessary to secure the greatest good of the greatest number.

d. The actual organization of productive industry, in all departments which give place to both sexes, is established on this basis of less compensation for women's work. In most cases, the greater cheapness of female labor is the chief reason for employing it. The cost of production is diminished thereby. The prices of all commodities into which this kind of labor enters are determined accordingly. The universal competitions of trade with their manifold complications are threaded through and through with this element of *women's cheap labor.* The whole body of consumers are accustomed to enjoy a benefit from it. Hence the principle cannot be easily eliminated. If the rule is a false one, it cannot be suddenly changed without deranging the entire systems of production and exchange. If the prices of men's labor be reduced to the level of women's wages, widespread and aggravated distress among all the laboring classes must follow. If the change be on the other side, the prices of goods included among the necessaries of life, must be raised proportionally, producing general distress in another way. All this indicates that the established order of things presents such obstructions, that any change must be gradual, and that there are great general interests to be regarded in every step of the movement.

e. There are feminine instincts which prompt women to draw back from many occupations because they are coarse, or involve too rough jostling with the world. These instincts need carefully to be preserved, for the charm of womanhood is gone when they are crushed out. The prevailing tendency is to make them excessive so that they grow into the sentiments of false delicacy before alluded to. Hence few occupations are open to women, and these are so crowded that competition is intense and low wages are inevitable. It is no more in the power of employers to resist this pressure than it would be in the power of a man with his bare arm to stem the Mississippi's current. All the considerations before named, concentrate here, and here, whatever means are employed to relieve the evil or the wrong, must find their application. False ideas of respectability keep thousands of women in lone garrets, plying their needles for a reward which barely saves them from starvation, while there is a steady demand for employment in domestic service, where, well fed, in comfortable homes, they might earn wages which would enable them steadily to lay up a little surplus.

f. This sharp competition is greatly intensified by the fact that many women who seek employment are partly or wholly supported by other resources than their own labor. Some, under the pressure of necessity, simply to escape the ennui of idleness, or to make their lives useful, and very many, aiming only to secure some addition to a partial income from other sources, seek a share in the limited occupations open to females. These are willing, because they can afford to work for less compensation than is needed by those who have nothing but their labor to depend on. And often the fact of their better circumstances, fields of struggle. When necessity carries her out to act for herself in those open fields, her true mission will still remain that of a *Helper*, not a *Principal*. The outlook of to-day is full of hope for the success of a *Conservative Reform*, which shall move on, safely balanced by a due regard always to that highest honor, to those most sacred rights of woman which centre in the true unit of society, the *Home*.

CHAPTER XV.

THE REMUNERATION OF CAPITAL.

CAPITAL, as we have seen, is a factor, all-essential in the production of wealth. The most important forms which it takes in the process are two, viz., *buildings, tools and machinery* to work in and to work with, and *materials* to work upon. Labor and skill are unavailable till these are provided. In the process of production, capital in these forms is consumed. The materials are immediately destroyed. Buildings and instruments slowly but surely wear away. Hence, the first appropriations from the proceeds of industry must be always to make good this loss,—to make necessary repairs, to buy new materials and thus *to replace the capital consumed.* Unless the business is a failure and must cease, this provision must first be made. The compensation of labor, the reward of capital and the profits must be reckoned after that is done. We here simply recognize this replacing of capital as *a necessity.* It forms no part of the *remuneration* of capital which we are now to consider.

The Principle on which the claim of Capital to Remuneration rests, *is essentially the same as that which sustains the compensation of labor.* By its definition, capital is the fruit of past labor preserved by self-denial to be employed in further production. One's right of property in that which he has earned and saved is indefeasible, it is precisely the same as his right to his own labor, for his own labor may have produced this capital, and it is but simple justice that if the owner allows another to use his property instead of using it himself, he should be compensated. No man expects to put forth his powers in present labor without some reward. Why then, should one be expected to give the use of the fruits of his past labor and self-denial without reward? The hope of such reward is the special inducement for saving. Suppose James Brown to have health and strength and skill as a blacksmith, but no shop, no tools, no iron. John Smith has, by previous labor and thrift, become the independent owner of a shop and its appurtenances, but is broken in health and unable to work. Each is evidently helpless without that which the other can furnish. Both will derive advantage from the union of the two properties,—the personal qualities on the one hand, and the accumulated means on the other,—in other words, the labor and the capital. This may be done in either of two ways. Smith may hire Brown to work in the shop, and with his tools, and pay him stipulated wages, reserving from the proceeds of his labor, something for himself. Nobody can question the rightfulness of that course. Or, Brown may hire Smith's shop and tools for a stipulated rent, and after paying that, have for himself the surplus of all he can earn by his work. On what ground can the rightfulness of this course any more be questioned? The latter method establishes the relation of *borrower and lender*, as the former does that of employer and employé. It grows out of a common necessity. It yields a mutual advantage. A division of the joint result may give each the living he needs. The one lives by his present labor, the other lives by his past labor, that is, on his capital. Is not each an honest way of living? Would it not be a grievous wrong for either to demand the benefit of the other's possession without paying for it? This simple case illustrates the whole matter in all its varied and complicated aspects. The principle seems too plain to need even so much of exposition. But the *Communist philosophy,* so called, which denies the rights of capital, is gaining some acceptance even in our enlightened country, and its sophistry is best exposed by the clear statement of elementary principles. Everywhere, labor and capital enter into a partnership. He who provides the capital justly claims to share with the laborer in the results of their union; and the laborer can well afford to pay for the advantage he gains.

It matters not in what form the capital is furnished; the principle is the same. The laborer may, as in the case supposed, use the shop, tools, etc., of another for which he pays *Rent.* He may make a formal loan, borrowing *money* with which to purchase these things and paying *Interest.* The capital may be contributed by a hundred different persons, uniting in a *stock-company,* which through its agents employs a hundred other persons as laborers. It is in this last case, just as really a partnership, as though each laborer made a bargain with some one capitalist, but here the compensation for the capital comes in the form of *Dividends.* The remuneration of capital thus appears in these three forms, *Rent, Interest, Dividends.* We have said that the fundamental principle is the same in all, yet each form has some peculiar phases which require a distinct presentation.

Rent, *is the compensation paid for the use of capital in the form of land and its appendages, commonly called Real-estate.* Rent implies *ownership* of land. It belongs not to our science to discuss the abstract right of property in land, or to determine the basis of that right. It is enough here to say that the wealth which God has hidden in the vegetable and mineral resources of the earth cannot be developed without some exclusive possession and control of the land itself. So too, the advantages of a particular location, as a place of residence or of trade, can be appropriated only in connection with a title of possession to that piece of land. When appropriated, *land must be reckoned as capital,* partaking of the nature both of *material* to which labor may be applied, and also of an *instrument* of labor. Unless excluded by special provision, the title to the land carries with it all improvements and permanent structures put upon it, the term real-estate including all. The use of capital in this form, as well as its ownership, may be transferred, and rent is simply the compensation paid for such *use.*

Several kinds of rent are indicated by different names; the distinctions having originated mainly in the peculiar features of the feudal-system and the laws of primogeniture and entail to which that system gave rise. Some of these may be mentioned in passing. A *Rent-charge* means a fixed sum paid annually as a commutation for military services or other obligations due from the occupant of land to its feudal proprietor. *Quit-rent* is a definite reserve, specified in grants of land, by the annual payment of which the tenant is quieted or quit from all other services to a feudal lord. *Metayer-rent* is an equal division of the actual products between the cultivator and the owner of the land. *Rack-rent* is rent raised to the utmost by forced competition. *Cottier-rents* is a term applied chiefly to the usage in Ireland, where sub-tenants rent each a cottage and an acre or two of land from the small farmers, the amount of the rent being ordinarily paid in labor at a money valuation. *Ground-rent,* a modern term applied mostly to city lots, is compensation paid for the occupancy of the ground alone, the lease usually providing for an equitable valuation of the structures erected on it, with a view to their separate disposal, on the termination of the contract.

In Great Britain, the influence of the old feudal-system is still felt in the monopoly of the lands of the kingdom by a few families of the nobility and rich gentry, and in many restrictions on the transfer of titles. There consequently, the problems of rent are many and complicated, and English writers on political economy give large place to this topic. We need not follow their extended and elaborate discussions, since they are ill suited to the condition of things in our country.

The famous *theory of Ricardo,* however, deserves a brief notice. His work on political economy is devoted chiefly to this subject, and the theory he propounds has met with general acceptance. Its leading idea is that rent advances with the progress of society from the first settling of a country, when, on account of the abundance of fertile land, there will be no rent, up to the time when the necessities of the growing population compel the bringing into cultivation, at the expense of greatly increased labor, the poorest of the land. *The rent therefore, which any piece of land will yield is just the difference between the value of its products and the value of the products of the poorest land in cultivation.* The increase of population causes an increase of rent, and with the advancing rent, the cost of food must steadily advance. So by inference, this theory was made to sustain the Malthusian theory of population, which presents general starvation and wretchedness as the certain result in a not distant future, unless some restrictions are laid on the natural increase of population.

The elementary principle of this theory, that the rent of land for agricultural purposes, must depend chiefly on its productiveness is true. But the representation of the manner in which lands of different grades are brought under cultivation is ideal rather than real. The deduction from the theory can stand only on the assumption that the food of a country must be provided entirely from its own soil, limited in extent. The repeal of the corn-laws and the adoption of the principle of free-trade have shown that even England has little occasion to apprehend the sad consequences of the so-called Ricardo-Malthusian system. When all artificial restrictions are removed, the natural equilibrium of supply and demand will provide food for a people, irrespective of the more or less that may be raised within their own territory. Then too, the same law will determine the value of the products of the land, and rents will be adjusted accordingly.

In our country, by the constitutions of most of the states, lands are declared to be *allodial* and feudal tenures are prohibited. The property-right to all lands rests upon *a title in fee-simple*, unencumbered by entails and mortmain holdings. This makes the ownership absolute and its transfer easy and direct, free from burdensome restrictions. At the same time powerful influences oppose the aggregation of great landed estates, and favor the acquisition of such property, in comparatively small tracts by the industrious and thrifty of all classes. Here therefore, the principles of rent are very simple. For agricultural purposes, the rent of land is determined mainly by three considerations.

1. *Productiveness.* Land is the instrument by which the farmer produces the various vegetable and animal substances which he offers in exchange.

Like any other valuable instrument, it of course, commands a price according to its productiveness. He who hired a loom, would pay more for a loom with which he could weave twenty yards a day, than for one with which he could weave but ten yards a day. The case is the same with land. But the productiveness of land depends on two circumstances, viz., its *Fertility* and its *Situation* with respect to a market.

a. Fertility. We all know that the productiveness of different soils is very diverse. Some soils will produce thirty, or forty, or fifty bushels of wheat to the acre, while others will produce, at the cost of more labor, not more than ten or fifteen bushels to the acre. Some soils will produce the most valuable vegetables; and others, only the most common, and comparatively worthless. Some soils will produce no wheat whatever; and others will, without manuring, produce a luxuriant crop every year. Some, wholly unfit for tillage, can be used only for grazing; and even when thus employed, yield to their stinted flocks but a meagre subsistence. Hence, we see a reason for a great diversity in the price of land. And we see at once, that a farmer might more profitably pay a rent for one farm, than occupy another farm for nothing.

b. Situation. The products of the farmer are all bulky, and of course, acquire a very considerable addition to their cost by transportation. Hence, if A raise wheat within a mile of a market town, and sell it for one dollar a bushel, and B live one hundred miles off, and bring his wheat to the same market, he must sell it at the same price. The merchant who buys wheat can give no more than the market price for wheat, whether it has been raised near or far off. It is no more valuable to him for having been brought one hundred miles. If now, the price of bringing a bushel of wheat one hundred miles be fifty cents, B actually receives but fifty cents a bushel for his wheat, while A receives a dollar. If the farms of both were of equal fertility, that is, if both produced twenty bushels to the acre, the farm of B, would be only half as productive as that of A; that is, he would receive only ten dollars per acre, while A received twenty dollars. This amount of difference in situation, would be the same as a difference of one-half in fertility, or actual productiveness.

Hence, fertility being the same, productiveness will be as situation; and situation being the same, productiveness will be as fertility. And we see that these circumstances will always, when opposed, counterbalance each other; that is, land at such a distance from the market that it costs one half the price of products to transport them, will be of the same value, or actual productiveness, as land of half its fertility, contiguous to a market. And hence, in estimating the productiveness of land, these circumstances are always to be considered together. And we see that land of the greatest fertility may be so far from a market, that the cost of transportation will leave a profit insufficient to repay the cost of cultivation. In such a case, such land will be worth nothing.

The highest degree of productiveness is realized when these two circumstances are combined. Fertile lands near to a market always command a high rent. Internal improvements which diminish the cost of transportation have the effect of thus combining fertility and situation. This has been one important cause of rapidly enhancing the value of agricultural lands in the valley of the Mississippi, where distance from the sea-board and the consequent expenses of transporting their produce balanced all the advantages of their superior fertility, until steam navigation and railways were extended thither.

In the settlement of a new country, another consideration has weight in the choice of lands first occupied. The most fertile lands and those most favorably situated may require *great labor* to bring them under cultivation, and hence inferior lands may be first selected. This however is only another aspect of the same principle. For in any branch of industry, our estimate of productiveness must take into account *the cost of labor* necessary to secure the product. No agricultural lands will command a rent, whose crops do not yield a surplus above what is necessary to support the laborer. While the process of clearing heavily timbered land is going on, the crops will hardly keep the laborer alive, though the crops of subsequent years may yield a full compensation for that first cost. As these later returns come in, such lands yield rent which steadily increases until the full measure of its productiveness is reached.

2. *The Growth of Population and its concentration in new centres.* This means only that whatever increases the demand for agricultural products, or in any way improves the market for them, enhances the value of the lands and warrants the payment of increased rents. The natural growth of a population devoted chiefly to agriculture multiplies various wants which can be met only by some forms of mechanical industry and mercantile enterprise. Those who are thus employed, by necessity collect together into towns and villages. Thus a large population is collected, which raises nothing from the earth, and their wants must be supplied by the agriculturists in their neighborhood. Hence, immediate markets for produce are created in every district; that is, although the farmer cannot remove his farm nearer to market, the market has removed nearer to him, and the diminution of distance has increased the productiveness of his farm, as much as though its fertility had been increased, or it had been removed to the seaboard. Thus, within fifty years after it was occupied by farming emigrants, Western New York was studded with villages, many of which soon grew into large cities. The same thing has been illustrated on a still larger scale in the rapid increase of population and wealth through all the western states. With all this development, agricultural lands have increased in value, and command rent according to their proximity to the new markets thus formed.

The development and use of water-powers and other facilities for manufacturing has the same effect. Such enterprise brings in a rapid increase of population by immigration, who must be, to a considerable extent, fed by the products of land in the vicinity. Agricultural and manufacturing industry have thus a most intimate relation to each other, and the free growth of both in near proximity, promotes the most general and genuine thrift. By the forming of such near markets, lands of inferior fertility may come to bear a considerable rent, because every such community requires large supplies of vegetable products which do not well bear long transportation. The development of manufacturing industry in New England has thus kept up the value of her poor farming lands in spite of the competition of the richer soils of the west, which through facilities for transportation have sent on immense quantities of produce. It will not pay for the New England farmers to raise wheat, but for potatoes and other vegetables, bulky and perishable, needed in the manufacturing towns close by, they have a market of their own, which sustains the value of their lands.

3. *Rents are affected by some Incidental Circumstances.*

a. Natural Beauty of Situation adds to the value of a farm. Of two farms equally productive, many men would give a decided preference to that which commanded a view of the richest and most beautiful prospect, or of which the trees and shrubbery were so arranged, as to give the greatest *pleasure* to the beholder. For this preference, most men would be willing to pay an additional price. This additional price will increase with the wealth and the improving tastes of the community. This is a circumstance which should always be borne in mind by the occupiers and owners of land. It costs but little more labor to lay out an orchard *regularly and beautifully,* than to lay it out irregularly and clumsily. It costs nothing to let a tree stand where it adds beauty to a prospect, and it costs very little to plant one, where it will have the same effect. A neat and convenient house consumes neither more lumber nor nails, nor labor, than a slovenly and inconvenient one. And yet on these differences, very much of the value of a farm depends.

b. The value of land depends much on the *Intellectual and Moral Character of the Neighborhood.*

Of two farms of equal productiveness, but in very dissimilar moral and intellectual communities, almost every one would prefer that which, in these respects, possessed the greater advantages. A man who has in any degree cultivated his own intellect, prefers the society of those whose intellects are also cultivated. A parent would always prefer a neighborhood in which his children would receive the advantages of education. A man who had been accustomed to religious observances, would choose to reside where he could enjoy the benefits of religious instruction. And every man, let his dispositions be what they may, will choose to live in a neighborhood, in which the moral character of the people is a protection from dishonesty and robbery, and where his children will be, as little as possible, exposed to the contaminations of vice. It is manifest that each of these considerations would form a ground of preference, for one situation over another, and for this preference, every reasonable man would be willing to pay. Were two farms thus differently situated, there would be many more buyers for the one than for the other, and the advantage would all be on the side of the most intelligent and moral community.

Hence we see that, besides the advantages which intelligence and virtue confer upon the character of a people, there is also an additional advantage in the increased value of property which they produce. It may be fairly questioned, whether this, of itself, be not sufficient to repay the whole expense of literary and religious institutions. There are towns in New England in which, in a few years, the price of real estate was doubled, for no other assignable reason, than that of the literary and moral advantages which they hold out to residents. This mode of increasing the value of property, is deserving of more attention than it has generally received.

c. *Improvements* put upon the land are also to be taken into account. Under this term are included drainage and fertilizers applied to the soil, the benefit of which runs through a series of years; also fences, barns and other outhouses and a residence for the family. These things are indispensable to successful agriculture and every addition increases the utility and desirableness of the land. The unthrifty appearance of a farm whose improvements are neglected and run down, is in itself repulsive, enough so, often, to overbear other considerations. One is hardly willing to stop and inquire about the intrinsic fertility of such a piece of land. He will fix his choice rather on even wild land, untouched, at least unmarred by the hand of man.

It is to be observed however, that where the improvements are in excellent condition, rarely is the value of the land, indicated by either rent or purchase-price, increased in proportion to the expenditures laid out on these improvements. The reason of this is that, with respect to some of these outlays, the benefit is hidden, not apparent to the eye, as in the case of drainage and fertilizers; respecting others, as of the barn and the dwelling, every man has his own taste, and what may have been of great interest to the original proprietor, may fail to be appreciated by a purchaser or tenant. Often a dwelling house is erected costing as much as the whole farm without it is worth, thus doubling the capital invested. But all this will add nothing to the actual products, the matter of chief consequence in the mind of one proposing to buy or rent the place.

It must be added that in this country, almost invariably, rented farms are rapidly deteriorated with respect to both fertility and improvements. The temporary tenant seeks to realize the largest profits from immediate harvests, having no interest in the continued productiveness of the land. Hence, unless he is occupying the farm on long lease, he will not spend much in enriching the soil or in keeping buildings, etc., in repair. To avoid this deterioration, the terms of the lease are sometimes so drawn as to require certain outlays annually, to keep up the land and its appendages.

For Mining Lands rent is determined almost entirely by *productiveness*, real or prospective. On the first discovery of mineral treasures, the value of the land in which they are found, is at once increased according to the profit anticipated from working them out.

Suppose a farm to be worth the ordinary price of land; and the owner discovers on it a bed of iron ore which, after deducting the necessary expenses of working it, and paying the labor and skill necessary to the operation, will yield one thousand dollars a year. The farm or the land necessary for the mining operations will rent for one thousand dollars a year, or will sell for such a sum as will yield, at the ordinary rate, one thousand dollars as interest. In this case it is manifest that the original owner of the property will be a gainer by the discovery, to the full amount of the increase in the price of his land. But here the *peculiar* gain ceases. To other holders who may come after him, it is merely an investment of the same nature as any other investment, and will yield no more than the ordinary rate of profit.

The case is the same with a copper, a silver, or a gold mine. The owner of the land at the time of the discovery, becomes greatly enriched in consequence of this new product, which may be derived from his property. But after this rise, when a new purchaser comes into possession, the *peculiarity* of the gain ceases. A rich gold mine will rent or will sell for more than a poor one, and its price or its rent, will be in exact proportion to its productiveness, just as a farm, a mill privilege, or any other property. It is a somewhat remarkable fact, that mines of the precious metals are in general, singularly unprofitable, after they have passed out of the hands of the original owners. It has grown into a proverb in South America, that if a man own a copper mine he will grow rich, if he own a silver mine he will gain nothing, but if he own a gold mine he will certainly be ruined. The fact, however, may be easily accounted for. The imaginations of men are always strongly excited by the contemplation of the precious metals, and it is rare that anything but experience can teach them, that they may buy gold too dear. Hence, they do not compute the chances of profit in the production of gold, as coolly as they do in any other case. But the production of gold is governed by as fixed laws as the production of wheat. Gold cannot, any more than wheat, be produced by an effort of the imagination. It is the result of labor and skill and expense. And if these be greater than the revenue, a man will as assuredly be ruined by producing gold, as by conducting any other unprofitable business, his imagination to the contrary notwithstanding.

In cities, where population is concentrated within narrow limits, rents for lots and buildings are determined almost entirely by *location,* with respect to facilities for business, the social character of the neighborhood, and the freaks of fashion. A man needs a house which will furnish the necessary conveniences for his family. He also wishes one within a convenient distance from his place of employment. The further his dwelling is removed from his store or his counting-room, the longer time is occupied in passing from the one to the other, and the less are the conveniences of his residence. Hence, he will be willing to pay for the choice, and thus the price of land gradually diminishes from the centre to the circumference of a thickly settled town. Often also, he is willing to pay an extra price for a residence in a *respectable, or fashionable quarter of the city.*

In a place of great commercial activity, another class of buildings is needed *for the transaction of business.* Where many exchanges are to be made in the course of a few hours every day, it is of importance that the exchanges should be as near together as possible. And where a large number of strangers is daily collected for the sake of making purchases, it is important to the seller to be so situated as to be in their immediate vicinity. A merchant whose store is in the centre of business, can easily sell ten times as much in a day as one who is half a mile off from the centre. Hence, he is able from the mere fact of difference in situation, to realize a much greater annual profit in the one place than in the other. For this difference of productiveness, he will be willing to pay a price; and hence, in large cities, the most central situations, or, as they are called, the best stands for business command a very high rent, and a corresponding price. A few square feet of land in the centre of the city of New York, will sell for more than many acres of the most productive soil in any part of the Union. And as the price of land in such cases, is owing entirely to the demand for the purposes of facilitating trade, it can only rise with the increasing prosperity of the place. Hence, the rise or fall of real estate in any town, if it be truly a rise in value, and not a rise from speculation, is one of the surest indications of its mercantile prosperity, or of the reverse.

With the growth of cities, the centres of business are subject to change from time to time, occasioned sometimes by the need of enlarged space, often by the mere whims of fancy or bold speculation. Forty years ago, most of the jobbing business in New York was done in Pearl Street, and property on that street commanded the best rents in the city. In course of time, that branch of business was transferred to another quarter, and Pearl Street stores to-day, rent for a small fraction of their former rates. The bold speculation of one man had the effect to transfer the fashionable retail business of Chicago, from Lake Street to State Street with a corresponding revolution in rent. Particular branches of business are apt to concentrate, each in its own part of a city, and often for reasons which nobody can explain, and in spite of great inconveniences. Thus more or less of uncertainty is attached to city property rented for business, and this fact must be considered when capital is invested in that way.

The remuneration of capital in the form of *real-estate* is, except in the favorite locations of great cities, generally *less* than the average rate of profits from business. We may name several reasons for this difference.

1. *Property in land is considered more secure than any other property.* The principal may be considered indestructible. Hence, it is the safest of all investments, and *nothing* is paid for the *risk*.

2. *The title to lands can be more definitely secured* than that of any other property. The legal instruments by which it is secured to the individuals, are a matter of public record. The boundaries of land can be, and commonly are, ascertained with entire precision. The land itself can not be removed. Hence, the ownership of it can be always ascertained and conveyed to posterity.

3. *Men generally derive some influence and consideration from the ownership of land*, which they do not derive

from any other possessions. Formerly, the right of suffrage was restricted to landholders. The existence of this rule shows the degree of consequence which attached to this sort of possession. And the fact that it has so frequently existed, while the contrary rule has never existed, shows the general tendency upon the subject.

4. *There seems to be in the human race a strong disposition to become the owners of land,* and a natural love for the pursuit of agriculture. Men of all professions look forward to some period of life, in which, relieved from the toils of business, they may retire to the quiet country. To whatever extent this disposition exists, it of course tends to raise the price of land above that of other property, paying the same rate of profit. If a man receive a part of his remuneration in pleasure, he will be content to receive less in the form of money.

5. *The natural progress of society tends to increase the value of landed property.* This has been already illustrated in general, in the remarks which have been made upon rent. And it must be evident that, land remaining the same, and the population continually increasing, the demand for land must continually increase. And, besides this, the progress of society creates not only a more extensive demand for land, but a much greater variety of demands. As such is the tendency, men are willing to hold land at a less interest than other property, in the hope that the rise of price at some future time, will compensate for their present loss. Thus men frequently invest money in wild lands, expecting to reap no profit from them for many years, but calculating upon a rise of price at some time or other, which shall abundantly repay both principal and interest.

Property in land cannot be run away with, nor destroyed nor fraudulently disposed of. Meantime, while society is advancing, its bottom-value steadily increases. In cases not a few, we have seen a small capital, in this way grow into a fortune. For this reason, an owner of city-lots is willing for a very moderate ground-rent, to grant others the privilege of building on his land, since he runs no risk and has the benefit of increased value at the end of the lease. The only drawback is in the liability to excessive taxation by corrupt "rings" in city-governments.

CHAPTER XVI.

INTEREST.

Interest *is the compensation paid for the use of money borrowed.* The most convenient form of capital to be loaned, for both lender and borrower, is money. Loans are therefore most commonly made in money. Interest is always reckoned at a certain per cent of a defined sum of money, which is called *the principal.* The percentage agreed on is called the *rate,* and is usually stated as the rate per annum, though often payable at shorter intervals than a year. In cases where other kinds of property are transferred, while payment is deferred, an estimate is commonly made of the value in money, and interest is charged accordingly on the deferred payment, at the current rate. When credit is extended in any way beyond a limited time, the value involved is set down in terms of money, and interest on the debt is reckoned at some rate agreed on by the parties. Thus one may buy land for a site, and have a building erected on it, and purchase a steam-engine and machinery for a mill, and cotton to be worked up in the mill, and at each step give his note, for a part of the value, to be paid at a certain date, with interest. Or, instead of doing this, he may borrow of a friend the money which will meet his deficiency, giving his note for the whole on interest; and then set up his establishment complete by purchases made for cash. The transactions are essentially the same. The land, the mill, the engine and the cotton are what he wants, and what he actually borrows and uses as a part of the capital of his business. In one way or the other he becomes owner of the property, but debtor to some party for its value, and since it is contemplated that the debt will be paid in money, it is essentially the same as if the credit were given in the form of a money-loan.

Hence, interest is commonly called the *price for money.* It is evident, however, that it is not the *money,* but the *capital* which is wanted; because as soon as the man obtains the *money* he at once exchanges it for *capital.* This, therefore should always be borne in mind, that when we speak of the price of *money,* we mean the price of *capital,* which the money represents and for which it is always exchanged. It is evident that the laborer may derive very great benefit from the loan of money, that is, of capital. He is thus enabled to employ advantageously all his *skill;* and thus a loan for a few years is very frequently the commencement of a fortune. Hence we see how very absurd is the prejudice so commonly excited against money-lenders and money-lending institutions. Were there no money-lenders, there could be no money-borrowers; and were there no money-borrowers, the industrious artisan would surely be the greatest sufferer. It is not denied that the money-lender loans for his own advantage. But is it any more odious for one man to *lend* for his own advantage, than for another man to *borrow* for his own advantage? It is not pleaded that the one, any more than the other, is *benevolent.* This is quite another question. All that is pleaded is, that both, in so far as the things themselves are concerned, are equally honest and honorable. In both cases the man benefits himself while he benefits others; and this is all that can be said in favor of any other exchange. It is not of course denied, that the lender may be oppressive, tyrannical and avaricious; nor that the borrower may be fraudulent, indolent, and profligate. But this does not affect the nature of the transaction *per se.* We here speak of the thing itself, and not of the manner in which either party may act, in consequence of or in connection with it.

The term "*interest*" is a Latin verb in the impersonal form, and means *it is of advantage.* Recognizing the natural and necessary partnership of capital and labor in producing wealth, the term implies always a *mutual advantage* to borrower and lender. This interest, or mutual advantage marks the prime difference between *a loan* and *a gift.* It is therefore, altogether equitable that capital loaned, should be paid for. Interest is no extortion, and no unreasonable demand. It is for the advantage of the skilful laborer to borrow at a reasonable interest, as much as it is for the advantage of the capitalist to loan ; and it is as much for the advantage of the laborer as the capitalist, to enter into that partnership, by which they share the profits of the operation between them. It is by reason of this partnership, that the laborer receives the wages of *skill,* instead of the wages of mere *physical force ;* and the capitalist is able to employ *all* his capital in production, instead of employing only *that portion* of it which he could employ with simply his own personal industry and skill.

When money is borrowed to provide for the immediate support of an individual or a family, or for some present gratification, the property which it represents is consumed at once without returns of added wealth ; but the loan is made in some anticipation of means to be realized from labor or other sources at a future day, and the consideration is even then, a supposed advantage to the borrower as well as to the lender.

Loans made to an extravagant spendthrift who has property, simply anticipate the avails of that property, to be sold at a future day. On the side of the borrower, present indulgence is the only advantage ; if there is no property to secure the loan, it is to the lender, all the same as money thrown away. When a loan is asked to relieve the immediate needs of one reduced to poverty, the appeal is to one's *benevolence* rather than to his interest. If the favor is granted, though for form's sake or to relieve the sensitive feelings of the applicant, a promise to pay with interest may be accepted, it is really an act of *charity,* and may as well be so accounted.

The leading Considerations which determine the Rate of interest, are four, viz., *Risk, Convenience of Investment, Productiveness of Capital, and the Ratio between Supply and Demand of Capital.*

1. *Risk.* A loan is made on the promise of future payment. There is always a risk that the promise may fail. The rate of interest must be adjusted to the degree of the risk. He who would loan to one man at six per cent when he was sure of being repaid, surely would not loan to another man at the same rate, when there were fifty chances in a hundred that he would lose both principal and interest. At any rate he who did so, would very soon cease loaning altogether.

This risk depends upon several circumstances.

a. There is a difference in risk, arising from the *different modes of employing capital.* For instance, property at sea is more liable to destruction than property on land. Hence, the ancient Athenians made a difference between land and marine interest. The former was at twelve, and the latter as high as sixty per cent per annum. Property in merchandise is more liable to be destroyed, than property in houses; property in houses than property in farms. A house in the country is safer than a house in town; and a stone house is safer than a wooden house. Property employed in the manufacture of cotton, is less liable to be destroyed than property employed in the manufacture of gunpowder. Now when a capitalist makes a loan to be invested in some one of the above forms of capital, and his only security for payment consists in his hold upon the property in which it is invested, it is evident that his risk, other things being equal, will depend upon the safety of that property. Hence, it is reasonable that his remuneration for risk should correspond with the greatness of that risk.

b. The second circumstance which enters into risk, is *the personal character of the borrower.* This is made up of industry, skill, knowledge of business, pecuniary ability, and moral character. When these have not been tested, or where, having been tested, they have been found insufficient to the safe conduct of business, there will be a corresponding indisposition to loan to a man of such character, because every one feels that there is in this case, more than usual risk. Hence, such a person cannot borrow, unless at an advanced premium, or at a higher rate of interest. On the contrary, if a man has conducted an extensive business for a long period with undeviating success, he attains to a high mercantile credit, and is enabled to borrow money at the lowest rates. But if a merchant is known to be frequently embarrassed, if he has ever, especially more than once failed, mercantile confidence in him is destroyed. No one will lend him, except on the most unfavorable terms.

These two causes of variation of risk are apparently modified by the practice of endorsing private notes. If I want money for the most hazardous investment, or am of the most doubtful credit, if I can offer my note endorsed by persons of established mercantile character, it is raised at once to par; that is, the extra risk is immediately removed. But this modification is only apparent. The endorser will rarely do this for nothing. He either himself receives a premium for it directly; that is, he is paid for taking the risk of default of payment; or else two persons mutually endorse for each other, and thus, the risk which A assumes for B, is paid for by B's assuming a similar risk for A. It is singular that any one should ever ask another to endorse his note merely as a matter of comity. It should always be a matter of business, and be paid for like any other business transaction. A merchant should no more ask another to endorse his note gratuitously, than he should ask him to insure his house gratuitously. The nature of the transaction is precisely the same. The risk in the one case, is frequently as great as in the other, and it should always, as much in the one case as in the other, be a matter of compensation.

c. The risk incurred in lending capital, is affected *by the character of the Government.* This affects both private and public contracts.

If justice is well administered, and every man has all reasonable security that he will have the whole power of the society at his disposal, in order to enforce a just contract, of course the risk is less, and the rate of interest lower, than when experience has shown that no such security exists. Hence, we see the economy of good legislation, and of a wise, just, and incorruptible judiciary. The additional interest on capital, incurred in consequence of the bad administration of justice in a country, would annually pay the expenses of all the courts of law, ten times over.

The same results flow from confidence, or the want of confidence in the *stability* of a government. A revolution not unfrequently dissolves contracts, dissipates security, and renders obligations valueless, both by destroying the evidence of their existence, and annihilating the means of enforcing them. Hence, when such an event is feared, men will not loan, except at an exorbitant premium; and they generally prefer removing their property to some other country, to subjecting it, for any premium whatever, to the risks of a revolution.

The same may be said of *public contracts.* Governments, in whose stability and good faith undoubted confidence is reposed, borrow the most enormous sums at the lowest rates of interest. Those which are in daily danger of being overthrown, can scarcely borrow at all, or, if they do borrow, it is at the most ruinous premium. The South American governments can scarcely borrow at any interest. Great Britain, notwithstanding her present enormous debt, borrows at three or four per cent to any amount she pleases. Nay, so great is the public confidence in her permanency and integrity, that probably there is scarcely a civilized nation on earth, which does not at present own some share of her national debt. The greater the civil commotions of other countries, the more easily can she borrow, because capitalists naturally invest their property where they are confident of its security, and confident that its interest will under all circumstances, be regularly paid.

2. The rate of interest is varied by the *Convenience of the investment.* The convenience of an investment depends upon several circumstances.

a. Facility of transfer. When a man loans capital, he is of course ignorant of the future, and does not know how much he may need it at some subsequent time. If he loan at six per cent for two years, he may in six months find some investment in which it would yield him eight per cent, but having loaned it for two years he cannot now withdraw it. Hence, it is a great advantage if it can be so invested that he may without loss, recall it at any moment.

b. Permanency of investment. If a man does not wish to withdraw a loan, it is an advantage to him to have it continue for a long period, because he is thus saved the loss of interest which would occur during the time of transfer, and the trouble and inconvenience of finding another borrower. This is of special benefit to widows, orphans, persons retired from business, and all those persons who wish not to labor with their own capital themselves, but only to live upon the interest of it.

c. *Punctuality* in the payment of interest. It is a great convenience to those who invest capital to be able to calculate with certainty on the payment of interest. They can thus with ease, adjust their expenses, both to the amount of their income, and to the time of their receipt of it. If they wish to re-invest the interest, they can make their arrangements with certainty, and thus invest it with the greatest advantage. They are also saved the trouble of looking after their debtors, and they avoid the inconvenience of that personal altercation, which is liable to arise respecting pecuniary transactions.

When any form of investment combines these advantages, men are found to prefer it to one which is destitute of them, and they will loan their money on these terms at a lower rate of interest than on any other. Debts in this form are said to be *funded,* and the creditors are said to hold *stock.* Public debts are generally thus arranged. The various companies formed for banking purposes, and purposes of internal improvement, are constructed on the same principles. Every one who contributes a certain amount toward the capital of such a company, receives a certificate that he owns such a share of that capital. He is entitled to his portion of the profits at stated times. He may retain this certificate himself as long as he pleases, or he may sell it at any moment, to any purchaser who may want it. Hence, money may always be borrowed under these circumstances, at the lowest rates.

3. The rate of interest is affected by *the Productiveness of Capital.*

When the risk is the same, we find interest higher in some countries than in others, and higher in the same country at one time than at another. Thus, when the security is equally good, interest is higher in this country than in Great Britain, and in this country it is higher in the new than in the older states. And, we also find that it is lower now in Great Britain than formerly, and that it generally becomes less as a community grows older. Much of this difference depends on *the average Profit of Capital.* The profit of capital is that annual value which it yields to the possessor, after he has deducted the principal, and paid the expenses incident to his actual operation. Thus, if by the use of one thousand dollars a year, I am, after replacing the principal and all the cost of my operation, one hundred dollars richer, this one hundred dollars is the profit of my capital. Now, the greater this is at any time, the greater will be the sum which I shall be willing to pay for the use of one thousand dollars. If by the use of capital, I can, after paying all expenses, realize twenty per cent, I can afford to pay more for the use of it, than if, after paying all expenses, I could realize only five per cent.

We may specify a few of the causes on which the difference of profit of capital depends.

a. Fertility of Land. He who wished to borrow money to invest in agriculture, could afford to pay higher interest when the land produced fifty bushels to the acre, than when it produced only twenty-five bushels to the acre, provided he could procure the land for the same purchase money.

b. Productiveness of Industry. The use of natural agents adds greatly to the value annually produced from a given amount of capital. This will tend to raise the price of capital, since a man will give more for money to invest in a machine which will produce one thousand dollars a year, than in one which will produce only five hundred dollars. It is true that the influx of capital will tend to bring any one branch of industry in process of time to the general level. But that progressive increase of productiveness, which belongs to the progress of civilization, tends to keep up the price of capital, which would otherwise fall unreasonably low.

c. The Demand for Exchange. The greater the demand for exchange, the more profitable must be that capital which is invested in exchange. In a town where mercantile business is brisk, and a man can sell all his stock at a good profit two or three times in the course of a year, money will bear a higher interest than in a town where exchanges are slow, and he must keep his goods on hand for a year or more.

4. The rate of interest is especially affected by the *Ratio between Supply and Demand of Capital.* This produces the same effect upon the rate of interest as upon everything else. Whatever be the profit of capital, if the supply be very small, the price will rise in proportion, since he who, by employing it at a high price can make a small profit, will rather so employ it, than, by doing without it, make no profit at all. Thus if, by the use of one thousand dollars for a year, I could realize three hundred dollars, I might be willing to pay two hundred for the use of it, rather than not to have it; for in the latter case I should gain nothing. If then, there were but little capital in the market, and many persons were as willing to give this rate of interest as myself, I should be obliged to give it. But if on the contrary, there were many persons desirous of lending, and there was much capital in the market, and I were the only person who would be willing to give this interest, they would underbid each other, and I should be

able to procure it of him who would loan it to me at the lowest rate. I might then be able to borrow it for one hundred and fifty, one hundred, or even sixty dollars per annum.

In a new and prosperous country, interest is always high. This results from several reasons affecting the ratio of Supply and Demand.

1. Land is very *cheap*, and at first is all of very nearly the same market price. In many cases it can be had for almost nothing.

2. Land is very *fertile*. The produce of a soil when new is generally greater than ever afterwards.

3. The soil, not at first needing manure, requires but small investments of capital, and these are very richly repaid.

4. The inhabitants of a new country can carry with them but few of the conveniences of life. These must be purchased after they arrive there, and must either be made on the spot, or be imported. Neither of these can be done without capital. And as the demand for these conveniences is imperative, and as the income of land is abundant, the settlers are willing to pay a high price for them. Hence, the profit both of mechanical and of commercial labor is very great, and the price which is paid for capital is very high.

5. The inhabitants of a new country have generally very numerous exchanges with the aborigines. Such exchanges are exceedingly profitable. But these cannot be carried on without capital. These facts all tend to create a great demand for capital.

On the contrary, the *supply* of capital in a new country is generally small, because emigrants are by no means the most wealthy classes of a community. Those who are living in peace and prosperity at home, are not generally the most willing to brave the perils and hardships of the wilderness.

Furthermore, those who are not inclined to expose their persons to the hardships of a new country, are not inclined to send their capital where they are not present to watch over it themselves. Hence, it is difficult for a while, for a new people to borrow, and they can overcome this difficulty only by the payment of a high interest.

These are the causes of the high rate of interest in new countries on the borders of civilization, and generally, wherever savage and civilized nations intermingle.

As a country becomes settled, however, these causes begin to operate less powerfully and thus the rate of interest gradually diminishes.

1. The annual produce of the earth is, year after year, changed into fixed capital, and thus the demand for capital is met in part by a home supply.
2. The fertility of the soil diminishes, so that it is necessary to pay less interest.
3. Land is sold at different prices, according to its fertility, and as it rises in price, the degree of profit to the purchaser is diminished.
4. The wants of the natives are supplied, and hence, one source of gain is dried up.
5. A more perfect knowledge of the country, and more perfect confidence in its prosperity, diminish the unwillingness of persons in older countries to loan, and hence, capital from abroad may be procured with greater facility.

The gradual operation of these causes must tend to reduce the rate of interest in different countries to the same average. Yet there are always in each country or section of country, peculiar circumstances which fix for a period, longer or shorter, what Mr. Fawcett calls "*some point of steady equilibrium* about which the current rate of interest in that country, oscillates." Thus in England, for many years, the average rate has been about three and a quarter per cent, in Holland it stands as low as two per cent, in New England and New York it is six or seven per cent, in Wisconsin and Illinois it long stood at ten per cent, but is now evidently declining.

The constant tendency of civilization, is to the reduction of the rate of interest, because wealth increases rapidly, and risk is diminished by more perfect securities. As capital becomes more abundant, in proportion to the uses that are to be made of it, it commands a less price, that is, a man can gain less than formerly with a capital of one thousand dollars, and hence, he is willing to pay a less interest for it. But it is also to be remembered that a much larger proportion of men are worth one thousand dollars than formerly, and that for one that was worth one thousand dollars fifty years ago, there are fifteen or twenty who are worth ten thousand dollars now; that is, men with the same labor are able to secure as many or more comforts than formerly, but they are obliged to do it by the use of a larger amount of capital. They are obliged to labor with a larger capital, but that large amount is as easily procured as a less amount was formerly. The complaint so frequently heard of the increasing difficulty of accumulating property, is really unfounded; and taking the difficulty or ease of procuring capital into the account, the more advanced periods of society are as favorable as any to the industrious classes.

The best adjustment of supply and demand depends on the freedom of capital. By *freedom of capital,* is meant the unfettered liberty of the individual to employ his capital in any innocent way that he pleases. When this liberty is enjoyed, every one chooses that way in which he supposes that he shall be most successful. The larger the profit he realizes, the larger will be the interest which he will be willing to pay. When he is obliged to withhold it from a mode of investment which he prefers, and to employ it in one which he does not prefer, he must divert it from a more to a less profitable mode of investment. Hence, as he is obliged to employ it in a less profitable instead of a more profitable investment, he can afford to pay less interest, and the price of interest, by the effect of this interference, must fall. Such must be the effect of all monopolies, and of all means by which the active power of capital is diminished.

What has been said brings us to the following general conclusions:

1. *That, other things being equal, interest will be high when the risk is great, and low, when the risk is small.*

2. *That interest will be high, when the profit of capital is great, and low, when the profit of capital is small.*

3. *That both of these affect each other within certain limits; that is, when profit is great, if the risk be also great, interest will be very high, because the increase of risk diminishes the supply.*

4. *But when profit is low and the risk is great, there will be no loaning whatever, because what is paid for risk, will be more than can be gained by use, and men could not profit by borrowing.*

The rate of interest will be always affected by every circumstance which affects either *risk* or *profit* of capital. War, or the rumor of war, by increasing the risk, raises the rate of interest in property affected by it. In property not affected by it, the same cause depresses the rate of interest, because it diminishes the means and opportunity for production, and of course diminishes the profit of capital. On the other hand, the discovery of any new mode of profitably employing capital, raises the rate of interest by creating an increased demand for capital.

The rate of interest at any particular time or place, is not of itself an indication of the prosperity or of the decline of a country. The indication is to be sought for, not in the *rate* of interest, but in the *cause* by which that rate is affected.

1. Whenever the rate of interest is raised by *increase of risk*, this is an indication of *adversity*. Rise of interest from such a source benefits no one. It is of no service to the *lender*, because he derives no profit from that part of the premium which insures him against loss. It is as profitable for him to loan for five per cent without risk, as to loan for ten per cent, when five per cent is for risk, and five per cent for use. It is an injury to the *borrower*, because one hundred dollars are worth no more to him when he pays five per cent for risk, than when he pays nothing for it. Whatever therefore, is paid for risk, is always a loss to both parties, and the more there is thus paid, the worse it is for both. Hence, the rise of interest caused by bad government, civil commotion, revolutions, wars and general immorality, is always an indication of national decline, and the fall of interest produced by the contrary causes, is an indication of national prosperity.

2. On the other hand the temporary rise of interest caused by *increased productiveness and the development of new national resources*, is an indication of national *prosperity*. It shows that more than ordinary valuable modes of employing capital have been discovered, and that men can afford to pay a larger price for the use of capital. This is however a *temporary* rise, because a rise from such a cause will soon equalize itself. Increased productiveness will soon supply capital, or it will be imported from less favored countries. Thus, in new countries the rate of interest is high, but this is by no means an indication of adversity, for such countries, while paying so high a rate for capital, yet grow rich faster than those from which they borrow.

3. The gradual fall of the rate of interest caused by

the *diminution of risk,* and *the greater abundance* of capital, is an evidence of *prosperity.* It shows that a larger proportion of the means of subsistence is falling to the share of every individual; that every man can more easily procure capital; and that every man in order to support himself, produces a larger amount than formerly, of whatever will contribute to the comfort and convenience of his neighbor.

4. On the other hand, the fall of the rate of interest, caused by *a suspension of the means of production,* is an evidence of national *adversity.* Suppose a war to occur between this country and France. The capital now employed in transportation, must be almost wholly unproductive. The capital employed in producing our exports to that country, must also be useless. Hence, the rate of interest would fall; for many men would have no business in which to employ their capital. The case would be the same, were a fall in the price of capital to proceed from civil commotion, or any similar cause. And the adversity would remain until the cause were removed. For if capital were removed out of the country until, from reduction in the supply, the rate of interest rose, the industry of the country would still be depressed, until, by peace, order and good government, it regained its natural advantages. In case of war, the production of articles used in war is greatly stimulated, and business generally is for a time quickened to unwonted activity. But soon after peace is restored, there comes a reaction when the normal and adverse effect of the disturbance appears.

Hence, we see that in order to form any correct opinion respecting the condition of the country from the present rate of interest, we must always seek for the causes of that rate, instead of deciding from the mere rate itself.

Usury Laws.—In former times, when money was borrowed chiefly to be spent in immediate consumption, to take interest seemed to imply taking advantage of men's necessities, and the business of money-lending came into bad repute. The ban of society was upon those who engaged in it, and they were driven to demand exorbitant rates as an offset to the odium under which they lived. This prompted the enactment of laws to restrict and regulate interest, which were commonly called usury-laws.

The old Roman laws against insolvent debtors were extremely severe. To escape their penalty, men consented to pay what the lenders were disposed to exact, exorbitant interest. There was therefore a kind of necessity that the borrower should be protected by laws limiting the rate of interest that might be demanded.

In the middle ages, restriction rather than freedom was the rule in all departments and in all relations of productive industry. Interest therefore, like everything else, was subjected to limitation by law.

At the present day, the necessary coöperation of labor and capital in the development of trade, is better understood. The advantage to borrower as well as lender, of loans made to be employed in active, profitable business is also apparent to all, yet the old prejudice still lingers and perpetuates in the statute-books of most states, usury-laws. The specific object of such laws is *to define a certain rate as the highest rate of interest permissible.* Such laws are in direct conflict with the first principles of sound political economy, as several considerations clearly show.

1. *They violate the right of property.* A man has the same right to the market price of his capital in money, as he has to the market price of his house, his horse, his ship, or any other of his possessions.

2. *The real price of capital cannot be fixed by law,* any more than the real price of flour, or iron, or any other commodity. There is, therefore, no more reason for as-

signing to it a fixed value, than there is for assigning a fixed value to any other commodity.

3. *The price of capital or money is really more variable than that of any other commodity.* Most other commodities have but one source of variation, namely, *use* or *profit.* But capital in the form of money is liable to two sources of variation, *risk* and *use.* These vary at different times, in different investments, and with different individuals. There is, therefore, *less* reason why the price of money should be fixed by law, than why the price of anything else should be so fixed.

4. *These laws, instead of preventing, give rise to great and disastrous fluctuations in the price of money.*

Suppose that to-day, money is worth in the ordinary operations of business, ten per cent, and it is worth six per cent in loan. A man will as soon loan as employ it in business, if he possesses more than he wishes to use. There will then be a fair supply of money in the market. But let the profits of capital rise, so that, in the ordinary operations of business, capital is worth twenty per cent. If now the rate of interest rose with this increased rate of profit, the same individuals would be as willing to loan as before, and thus, the supply following the demand, there would arise no peculiar scarcity. The high rate of interest would also attract capital from abroad, and thus in a very short time, it would in this particular place, be brought to the general level.

But suppose that six per cent were the highest legal rate of interest, and that he who loaned at a higher rate, was liable to lose both his principal and interest, and also his mercantile character. In this case, as soon as the profit of capital in business rose to fifteen or twenty per cent, no one who could thus employ it, would loan it at six per cent. Hence, the supply would be immediately diminished; and this would of course, cause a greater rise of interest. Those who from honor or conscience obeyed the laws, would withdraw from the market, and employ their capital in some other way, and no one would loan but those who were willing to risk the consequences of detection. These, having the money market in their own hands, will of course charge for the use and for the risk of detection, and hence, the price in a few days may become doubled or trebled. At the same time, although the real value of money may be fifteen or twenty per cent, yet because the *legal* price is six per cent, there is no inducement for capital to come in from abroad, to supply the demand. Hence, the change in the money market has, by reason of this law, no tendency whatever to regulate itself.

5. *Such laws can never be enforced.* Men in want of money will pay what they please for it, and those who choose to pay enough for it can generally borrow. The effect then of the usury laws is merely to drive the best and most conscientious lenders out of the market, or else oblige them to lend by means of subordinate and less scrupulous agents. For this agency the borrower must pay, and hence the additional rate of interest. To this it is objected that money is not like other things, inasmuch as it is a necessary of life to the merchant, and therefore society must step in to deliver him from the effects of extortion. We may answer :

1. It is manifest that this interference does not render the merchant's condition the better, but rather the worse. Though the assistance, therefore, be well intended, he may very well dispense with it.

2. The greater the necessity for money, the more urgent is the necessity of leaving it undisturbed by legislative interference. It makes small difference to the community whether the price of jewelry be fixed by law or not. But suppose that when flour would bring ten dollars a barrel, the government forbade it to be sold for more than

seven dollars. Who does not see that the flour would be all driven away and the people starved? The same principle applies to the rate of interest. In all active commercial centres, this is now understood and acknowledged. The old prejudice is most cherished among the farmers.

Every state should have a simple enactment of law defining *a legal rate* of interest applicable to cases where the contract indicates no specific rate, or where, without formal contract, a debt has been incurred and interest is due. Such a law tends to prevent disputes and is of advantage to both parties. Legislation which attempts to go beyond this is wrong and mischievous.

Usury-laws offer a premium for the defiance of law, and confer a monopoly on unscrupulous extortioners. The reasons urged for their enactment apply to all other things with equal force, and would require the prices of all commodities to be arbitrarily fixed by law, and this would be as absurd as to try by legislation to regulate the tides of the ocean. Legal sanction and security for all reasonable contracts in loaning capital, encourage free competition and constitute the surest safeguard against excessive interest. The abrogation of usury-laws in Great Britain and in Massachusetts and other American states, may be welcomed as first steps in a reform, destined, we hope, soon to be universal.

Dividends. *This term is used to denote the remuneration of capital invested in Stock-companies.* This form of compensation for the use of capital is marked by some peculiarities which deserve a special notice.

Stock-companies are designed to unite contributions of capital from a number of persons, for business operations on a scale too large for the means of an individual capitalist. Such organizations are formed chiefly for manufacturing in large establishments, for banking, for insurance, for the construction and management of railways, canals, and the telegraph, for express transportation, for working mines and for extended navigation. In forming a company, the enterprise is projected, an estimate is made of the amount of capital required, and this is divided into equal portions called *shares,* which are offered more or less freely to the public. Most commonly the shares are one hundred dollars each. Whoever purchases one or more shares receives for his money a certificate of ownership which constitutes him a member of the company, entitled to a vote in the election of directors and to a participation in the proceeds of the business, in proportion to the number of shares standing in his name. These shares are transferable under certain regulations of each company and can be sold, like any other property, at their market-value. The owner for the time being is the stock-holder and recognized member of the company. Ordinarily, a board of directors is annually elected by the stock-holders, and the oversight of the business is entrusted to them. They appoint a manager and other salaried officers, who attend to details and are accountable to the directors.

Quarterly or semi-annually, the accounts are balanced, an inventory is made and the profits of the business, after providing for all expenses, are ascertained. On the basis of that showing, *dividends are declared,* setting down a certain percentage to each share of the stock. In all well-managed companies, before the declaration of dividends, there is set aside from the profits a small reserve to meet emergencies. This reserve accumulates from year to year, adding steadily to the real value of the stock. Sometimes this reserve or a portion of it, is divided among the stockholders by an extra cash dividend. Sometimes it is appropriated to the purchase of new buildings and new machinery for the expansion of the business. In this case, these outlays are regarded as increasing the capital and a *stock-dividend* is made, that is, each share-holder receives an addition to his stock proportioned to the number of his shares. Thenceforward, the profits are divided pro rata, to the whole amount of stock thus increased.

For illustration of the whole matter, suppose A. B. took fifty shares of the stock of the Pacific Mills Manufacturing Company, on which he has received returns for ten years. These shares represented five thousand dollars of capital originally invested in this way. Regular semi-annual cash dividends of five per cent, that is ten per cent per annum, have been made. Three years after the company was formed, a stock-dividend of twenty per cent was declared, and three years later another stock-dividend of the same amount was made. The company has still a considerable reserve in which every stock-holder has an interest. In view of this reserve, the large profits, and the high character of the managers, this stock when offered for sale, commands a premium of forty per cent, that is, for every share of stock rated at one hundred dollars, purchasers are willing to pay one hundred and forty dollars. On these suppositions, A. B.'s remuneration for his capital for ten years will stand thus :

Cash dividend on $5,000 at ten per cent for ten years,	**$5,000**
" " " 1,000 " " " seven "	**700**
" " " 1,200 " " " four "	**480**
First stock-dividend, 20 per cent on original stock	**1,000**
Second " " 20 per cent " increased "	**1,200**
Premium of present market value, 40 per cent on $7,200	**2,880**
Total	**$11,260**

This is equal to an average of nearly twenty-three per cent for the whole period. All of this may be set down as earned by the original capital thus invested. Meantime the ordinary rate of interest in New England where the mill is situated, has been not more than seven per cent. Simple interest on the original five thousand for ten years, would have amounted to three thousand five hundred. The difference between this amount and the sum given above is seven thousand seven hundred and sixty, which is therefore *profits*, the surplus over the ordinary remuneration of capital.

We have thus brought to view the chief peculiarity of this form of returns for capital. Properly considered, *Dividends include two elements, interest and profits.* If instead of buying stock, A. B. had loaned his money to the manufacturing company, he would have received only interest. But as an owner of stock, he becomes a direct partner in the business, entitled to a share in the profits, liable also to share in its losses. The case we have supposed is a favorable one, yet by no means extraordinary. It must be remembered however, that many investments of this kind yield no dividends, or such as amount to less than ordinary interest. In some cases, the capital is lost entirely; and in certain corporations, such as our national banks, each stock-holder is by law, made liable not only to lose his stock, but to pay an additional amount equal to that of his stock, if necessary, toward liquidating the debts of the company. There are besides, continual fluctuations in the market-value of many stocks, caused by gambling operations of brokers and adventurous speculators,—the bulls and bears of Wall Street. Often, as seen in some railway companies, the managers sacrifice the interests of the corporation, for the sake of making a fortune for themselves through fluctuations in the price of stocks, caused by their own action, and of which they know best how to take advantage. In other instances, as appears in some insurance companies, the officers and managers, holding a majority of the shares, vote to themselves salaries which use up a large portion of the profits. Frequent frauds and defalcations also appear, through abuse of trusts in managing business with funds belonging to a common stock. Men of highest character for integrity, have fallen under the delusive snares, the temptations, subtle and strong, which beset these positions. And by wild and utterly baseless schemes of fradulent organizations, many simple ones are induced to embark their carefully saved capital on an open sea, in paper boats, through which it soon sinks to the bottom never to be recovered. Capital invested in this form, is subject more or less to these risks. The interests of the small stock-holder are in other hands than his own, subject often to the will of men of cold merciless selfishness. A careful estimate of the results of such investments, would probably show average returns much less than ordinary interest. Yet, shrewd foresight in the careful selection of stocks may secure a tolerable certainty of dividends, which will yield, besides ordinary interest, a considerable profit. The danger is always that, under an illusion of the imagination excited by occasional singular examples of success in these operations, the risks will be overlooked, sanguine expectations will be raised, and men will find too late, to their loss and grief, how treacherous are the seas to which capital in such investments is exposed.

CHAPTER XVII.

DISTRIBUTION OF PROFITS.

Profit is a term popularly used in a broad sense, to denote any benefit proceeding from any kind of exertion, as we speak of the profit of study, of physical exercise, of social intercourse, etc. As a technical term of political economy representing the proceeds of industry, it is employed with too much looseness and ambiguity. Most writers define profits to be "*the remuneration paid for the use of capital,*" making the term include *interest* and something more. At the same time, they say that in estimating the cost of any product, interest at the current rate on the capital employed, should be reckoned in. Thus gross proceeds are confused with net proceeds under the same term. Mr. J. Stuart Mill says, "The three parts into which profit may be considered as resolving itself, may be described respectively as *interest, insurance* and *wages of superintendence.*" Mr. Amasa Walker makes the matter more definite at least, by representing profits as the share which falls to the employer or manager, or to use the convenient French term "*l'entrepreneur,*" who effects a union between capital and labor and directs their active coöperation. This loose and varied use of an important term is certainly not scientific.

It seems clearer and better to hold this word *profits strictly to mean the net proceeds, the surplus after the necessary expenses of business have been deducted.* A consistent presentation of our science requires just this term and prescribes for it this specific meaning. We have seen that the main factors in the production of wealth are labor and capital. We have seen that various kinds of labor are necessary, as simple labor, skilled labor, and labor of oversight, superintendence and general management. We have seen also that these different kinds of labor are compensated by different methods and at different rates. Those engaged in direct, operative labor constitute the great majority of laborers and receive their remuneration in *wages;* those who have the responsible charge of oversight and management are compensated by *salaries,* fixed according to the estimated importance of their service; and the proper remuneration of capital is *interest.* All these outlays are to be reckoned as *expenses,* and with them are to be included the two other items,- *insurance,* or what is paid to guard against certain risks, and *taxes* paid for protection by the government. Now, if the products of an industrial establishment, after keeping the capital good, provide for these expenses and nothing more, the business is just sustaining itself, but it yields *no profits.* In that case, since all parties get their legitimate compensation, they may be satisfied to run on so for years. Whatever is realized beyond this, is profit. If the proceeds come short of providing for these expenses, some of the parties must suffer loss.

When the proceeds just cover the expenses named, while the business as a whole yields no profit, each of the several parties concerned may be earning for himself an individual profit. The laborer, out of his wages at forty dollars per month, may support himself on thirty-five, and have for the year a profit of sixty dollars, deposited in the savings-bank. The foreman from his salary of one thousand dollars per year, may lay away in like manner, two hundred as his profit. The manager, with his salary of ten thousand dollars a year, may, if he chooses, spend all in luxurious living, or by a little self-denial, he may add one half the amount, his profit, to his accumulating wealth. And the capitalist receiving seven per cent on his fifty thousand invested, may turn a portion, more or less, of this interest to increase his capital and reckon so much as his profit. In this view of the matter, each individual is regarded with reference to the personal end for which he employs his labor or his means, that is, to secure a living, and if possible, a surplus beyond. This use of the term is not at variance with our technical definition. But in our science, the word is more especially employed in its broader application to the proceeds of industry in which capital and labor are united.

The principle is the same when one combines in himself the functions of operative, manager and capitalist ; only in such a case, wages, salary, interest and profits if there be any, all come to him. Even then, the profits of his business can be distinctly defined, only by setting down a portion of the gross proceeds as wages for his labor, another portion as reward for management, another as interest for his capital and something for taxes and insurance. The net proceeds, after deducting these, would be the profits of his business, and in this surplus, if anywhere, he will find the main advantage of conducting an independent business, instead of loaning his capital and engaging his labor and skill in the service of others.

This rule is especially to be applied in all the complicated arrangements of productive industry, where different parties representing different interests are united. In all these combinations, the great aim is *to make a profit and to make it as large as possible.* It is evident that profits can be legitimately increased only by reducing expenses, or by increasing the amount and the value of the products. The amount of profits will be varied by whatever affects favorably or unfavorably either the efficiency and fruitfulness of the industry, or the expense of carrying it on. Hence, the importance of wise and faithful management. This is the most important service and deserves the highest compensation. But this fact does not warrant the appropriation of the entire profits to "the entrepreneur."

In this connection, another common error must be noticed. It is that of *expressing the measure of profits in a business, by a percentage on the capital invested.* If the profits belong exclusively to the capital, there may be some propriety in this usage. But at best, it is an indefinite, almost unmeaning way of stating the matter. In many cases, the labor is of more account than the capital. A laborer may, as we have seen, gain a profit from his industry without any capital of his own. A shoemaker with a capital of five hundred dollars, may by untiring industry, make his proceeds count a hundred per cent on that amount and yet receive no sufficient return for his labor; his business yields no profits at all. A return of twenty per cent on five hundred thousand dollars, invested in a business done on a large scale, may furnish ample remuneration for labor and management, with a large margin for profits. Hence, often, a man will find it for his advantage to work for wages or a salary in connection with a large establishment, rather than to attempt an independent business. So with truth is it said, "It is in the nature of trade and manufacture that *great capital drives small capital out of the field;* it can work for smaller returns."

With this understanding of the nature of profits and the manifest facts that industry is carried on with a view to profits, and that successful business actually yields profits, we come to the question, *How the profits are to be distributed.* Most writers, from Adam Smith to J. S. Mill, have treated profits as the remuneration of capital, and therefore to be assigned wholly *to the owners of capital*

When the owner of the capital or a large portion of it, is also manager of the business, the power is in his hands, and generally he will use it for his own advantage. This is most frequently the case, and hence, as a matter of fact, the capitalists do quite commonly get the whole benefit of the profits. But our common sense of right cannot be satisfied with such a distribution. The usage may be tolerated, but the calm sober judgment of men pronounces it not equitable. There is in it an element of tyranny which laborers feel and groan under and complain of, not without reason. Take an illustration from agricultural industry in England, where capital, in the form of land, is made by law, a monopoly, enjoyed by few. The case comes before us stated hypothetically, but it finds many a counterpart in fact. Lord Dundreary, sole proprietor of ten thousand acres, rents his lands to forty tenant-farmers, each having two hundred and fifty acres, at thirty dollars per acre. These farmers, furnishing skill, executive ability and some capital in the form of tools, live-stock, etc., make half as much per acre, as the rent they pay. They employ four hundred laborers—ten for each farm, on wages at about four dollars per week. Then we have the following footing:

One capitalist receives in rent	$300,000
Forty farmers get for their returns ($3,750 each)	150,000
Four hundred laborers receive in wages ($200 each per year)	80,009
Total proceeds of the estate	$530,000

Four hundred and forty-one men, representing probably as many families, are drawing on the products of the ten thousand acres. *A single one,* my lord, the chief capitalist, takes for himself more than half the entire proceeds, *absorbing all the profits.* Forty farmers receive a fair compensation for their capital, skill and care in managing the business. Four hundred laborers, reduced to the lowest state of penury and degradation, hardly keep soul and body together. In view of such facts, we do not wonder that an intelligent farm-laborer, Joseph Arch, should rise in his place and move for some radical reform and relief; or, if we may credit the newspaper report of his speech, that Mr. Gladstone should say of the British land-laws, "I am in favor of rather bold and important, if not sweeping change. Greater freedom ought to be established, and I think that not merely economical but social mischief results from the present system. Therefore, I am prepared to entertain on that subject, a great change."

In our country, since slavery ceased, so extreme wrong could not probably exist in the department of agricultural industry, nor perhaps in any other branch of business. But the principle that profits are the reward of capital, exclusively, involves such a wrong in greater or less degree. Probably, the detailed statement of the disposition actually made of the proceeds of many of our large manufacturing establishments and railway operations, would reveal like inequalities, against which the common mind instinctively protests. It is urged on the other side, that while capital, by having all the profits may receive more than its share one year, yet the very next year or for a series of years, it may receive no reward at all; that all the labor is first paid for, before capital receives any of its pay; and that in times of depression, while labor may be forced to take less pay, capital may get nothing and yet it can not be withdrawn. All this is true; and because capital thus takes the chief burden of risk, it may justly claim a proportionately *larger share* of the profits. But equity and good feeling and the best interests of all concerned will be promoted by holding to the distinction we contend for and recognizing labor as also a rightful partner to some extent, in both the risks and the profits.

The rule which assigns the entire profits to the manager *or employer, seems no less objectionable.* The importance of his judgment, tact and energy to the success of the business is obvious, and it is readily admitted that his remuneration is rightfully made larger than allowed to any other of the parties, and that its amount may probably be made to depend on the actual profits. This consideration, however, hardly justifies the appropriation of all the profits to his benefit. The laborers and the capitalists between whom he stands, the middle-man, agent of both, may justly claim a share.

Coöperative Associations have been formed to secure a more equitable distribution of profits, in the interest especially of workmen. In these associations, a number of working-men of a particular branch of industry join their means and their hands to carry on business for themselves, expecting to divide the entire proceeds among themselves by some defined rule of equity. Some such organizations have been, for a time, partially successful, but they are pretty sure to end in failure at last. The reasons are obvious. It is not easy to rule out *jealousies* and harmonize the views of such a company. A greater obstacle to success is found in *the lack of capital and managing ability,* two essentials for the continued life and prosperity of any enterprise amid the sharp competitions of the business-world. A military campaign cannot be successfully conducted by the direction of a majority vote in mass meeting. It must have an able leader, trained to command. So, in business, especially where numbers are to be engaged together, "a *Captain of Industry*" is all essential. Such a man, not every association of a hundred artisans however skilled and efficient, can furnish. Mr. F. A. Walker says that the sole object of this form of organized coöperation is to get rid of "the entrepeneur," and divide his proper remuneration. This means only that the laborers are trying to appropriate all the profits to themselves, which involves essentially the same mistake as appeared in the other cases.

For a fair distribution of Profits, there must be a full recognition of that *Partnership* which our science presents as an elementary principle of productive industry. Resolving this partnership by functions, there are three members, *the Capital, the Executive capacity*, and *the Labor.* Each is entitled to a share in the fruits of their coöperation. We may not say an *equal* share; because, in every case, as we have seen, capital takes the greater risk and is liable to the heaviest losses, and it is fair that this chance of greater loss should be balanced by a chance of greater gain. So, too, in every case, the amount of profits is due most of all to the executive wisdom and energy of the manager, and he is entitled to a proportionately larger share in the returns. After due allowance for these, however, there is a share which justly belongs to the labor, and should be distributed among those who make up this third member of the firm, according to each one's merit and grade in the service rendered.

It is a hopeful sign that public attention is now turning earnestly to consider plans for admitting workmen to a participation in the profits of manufactures. Some interesting and successful experiments have been tried. We adduce in illustration of the method, the case of the Messrs. Brewsters, carriage manufacturers of New York:

> "The firm offered to divide ten per cent of their net profits among their employés, in proportion to the wages severally earned by them, no charge to be made by the members of the firm for their services, prior to the deduction of ten per cent, or for interest on the capital invested; the business of each year to stand by itself and be independent of that of any other year. For some time, the plan worked to the satisfaction of all parties, as high as eleven thousand dollars a year being divided among the hands. The scheme was broken up only when, through strong pressure

from outside and the general excitement of the hour, the workmen were carried into the great strike of the trades in New York."

There are obstacles in the way of the immediate, general adoption of this measure. False ideas on the part of both workmen and their employers must be corrected, mutual confidence must be established and common usage must be changed; things which cannot be accomplished in a day. Yet what has been done fully justifies the statements of Mr. F. A. Walker.

> "That something of the sort is practicable, with the exercise of no more of patience, pains and mutual good faith than it is reasonable to expect of many employers and many bodies of workmen, I am greatly disposed to believe. Many experiments and probably much disappointment and some failures will be required to develop the possibilities of this scheme and determine its best working shape, yet in the end, I see no reason to doubt that such a relation will be introduced extensively, with the most beneficial results."

Success in these movements will involve as both cause and effect, a better understanding of the mutual relations of the parties and of the nature of profits on the part of capitalists and managers, broader views of individual interests as inwoven with the common interests, and on the part of workmen, more intelligence, more thrift, and consequently more of genuine manhood. Abiding relief for the unnatural and ruinous antagonism of labor and capital and a satisfactory solution of the hard problem of economical science respecting the practical relations of these two factors in production, are to be found in the adoption of measures which aim to establish *an equitable distribution of profits.*

CHAPTER XVIII.

REVENUES OF THE GOVERNMENT.

A Problem of Political Economy.—The prosperous industry through which men acquire wealth and the well-ordered condition of society by which men are made secure in the possession and enjoyment of wealth, depend on good government, efficiently administered. Every individual of the state has therefore an interest with regard to his own well-being in the maintenance of government. As a compensation for the service rendered him, he may then properly be called on to contribute a portion of his wealth for its support. These considerations bring this topic necessarily within the scope of our science; and it comes under this division which treats of Distribution, because the public revenues must obviously be drawn from the proceeds of a people's industry. Furthermore, since the government represents a common public interest superior to any private interest, its claim very properly takes *precedence* of all others; in a sense, *it has a first lien on the entire wealth of the nation.*

Taxation is the means employed to gather from a people the revenues of its government. To devise and apply an equitable system of taxation is one of the profoundest problems of legislation. It is a problem which the true statesman will study in the light of political economy. In studying the problem, taxation should be regarded with respect simply to its one object, viz., *the raising of a* *revenue for the state.* In despotic governments, the will of the ruler determines arbitrarily both the methods and the measure of taxation. The people's wealth is consequently exposed to the unrestricted plunder of an army of tax-gatherers, and great inequality and oppression prevail. It is a fundamental principle of free and just government that *taxes shall be imposed by representatives of the people alone,* through proportional and reasonable assessments on all estates; and that they shall be collected by uniform and responsible agencies acting under defined powers and direct accountability. The one thing to be aimed at is to make the burdens laid on the people as light and equable as possible consistently with providing means ample for the support of the government. For this, two things are essential, first, fair and impartial assessments, and second, efficient and economical collection. A perfect result has never yet been attained, for human selfishness opposes many subtle and great obstacles; but much is gained by steady contemplation of the philosophical ideal.

Adam Smith's Maxims.—This father of modern political economy laid down four rules of equitable taxation, as follows:

1. "*The subjects of every state ought to contribute toward the support of the government, as nearly as possible, in proportion to their respective abilities; that is, in proportion to the revenue which they respectively enjoy under the protection of the state.*

2. *The tax which each individual is bound to pay ought to be certain and not arbitrary. The time of payment, the manner of payment, the quantity to be paid ought all to be clear and plain to the contributor and to every other person.*

3. *Every tax ought to be levied at the time and in the manner in which it is most likely to be convenient for the contributor to pay it.*

4. *Every tax ought to be so contrived as both to take out and to keep out of the pockets of the people as little as possible over and above what it brings into the public treasury of the state.*"

It may be questioned whether it is true, as seems to be implied in the first maxim, that the abilities of different persons are measured in due proportion by their respective revenues or incomes. It is obvious that the ability of one whose annual income is five hundred dollars, and that of another whose income is fifty thousand dollars, to pay a tax of two per cent on their respective revenues, are not equal. Hence, the need of some further discrimination in estimating abilities. With this exception, these maxims of Mr. Smith are believed to embody principles of equity. They have met with general approval, as furnishing a test to which various schemes of taxation may be referred.

Direct and Indirect Taxation.—These terms are defined by Mr. Mill thus: "A *direct* tax is one which is demanded from the very persons who, it is intended or desired should pay it. *Indirect* taxes are those which are demanded from one person, in the expectation and intention that he shall indemnify himself at the expense of another." A poll-tax, a tax on land, live-stock, tools, goods, etc., and strictly speaking, an income tax, are examples of direct taxes. Duties laid on imported goods and excises on articles of home-manufacture are examples of indirect taxation; the importer or manufacturer who pays the tax, adding the amount of the tax to the price of the goods, to be ultimately paid by the consumers. Direct taxation, with fair assessments and honest returns of property and income, may be most fully conformed to the equitable principles embodied in the maxims just stated. But if applied to all kinds of property, it involves much labor and expense in collection, and is apt to prompt concealment and evasion and to provoke dissatisfaction and complaint on the part of tax-payers, because they know precisely when and how much they have to pay and feel the full force of the burden. Indirect taxes, on the other hand, are more cheerfully submitted to and more easily collected, because laid on the goods at the port of entry or at the manufactory, and so distributed in small quotas through the increased prices, that no one thinks of the tax he pays, when he makes his purchases. But this method violates nearly all of Mr. Smith's maxims. Under it, the burden is imposed very unequally, each one's proportion being determined not at all by his ability but by his *necessities.* Often a poor man, with a large family to provide for, actually contributes more for the support of the government, than his neighbor with ten times his wealth and ability. It is only a partial relief to this inequality which is gained by a discrimination that lays heavier duties and excises on *luxuries* than on the necessaries of life; for the proportion which each bears of the burden is still determined not by his ability, but by what he consumes. Hence, direct taxes if equally imposed, are commonly more just; that is, they derive the support of government from individuals more in proportion to their respective abilities, and to the degree of benefit which each derives from the government.

In favor of direct taxation, it may also be added that it is decidedly more in harmony with the genius of a republican or representative government. Such a government proceeds upon the principle that the people are the fountain of power, and are competent to govern themselves. Now, such a government ought not surely to act upon the directly opposite principle, that the people may *not know what they pay, or when or how they pay.* They are the *party* from which especially, nothing of this sort should be concealed. They should know *what* and *how* *much* they contribute; and also in what manner whatever they contribute is expended. It is in this knowledge and in the judicious use of it, that their safety consists. Therefore the consideration so frequently urged in favor of indirect taxation, that the people do not feel it, is one of the strongest arguments against it. The more a people feel taxation, and the more jealously they watch over the public expenditure, the better it is for them and for their rulers. Yet, until there is attained a higher standard of intelligence, honesty and patriotism than has been reached by any people hitherto, governments will still be compelled to employ this more convenient and easy method of raising their revenues.

In most countries it is now adopted as a rule of indirect taxation that *those commodities, such as intoxicating liquors, the consumption of which is regarded as injurious, shall be most heavily taxed.* Experience has shown that the consumption of such articles is not materially diminished by the tax. As a check on immorality, the measure is therefore of little avail; but as a source of revenue, it is found to yield large results. The greater part of the revenue of the British government from customs, is derived from duties on tobacco and intoxicating liquors. When however, the duty or excise is so high as to raise the price of the article very much above the cost of production, the temptation to smuggling and illicit manufacture is very strong, the expense of maintaining the law and collecting the tax is immensely increased, and corruption, more or less, on the part of revenue officers is almost inevitable. This folly was sadly illustrated, when the United States government laid a tax of two dollars per gallon on distilled spirits which could be manufactured for twenty cents a gallon. The revenues from this source, instead of being increased, were greatly reduced by this over-taxation, the price of the article in the market was steadily less than the amount of the tax, and all over the country, revenue officers were corrupted, the members of "whisky-rings" made enormous gains, under cover of the law which they evaded and defied, and the public sentiment was generally demoralized.

Tariffs.—This term signifies strictly the lists of imported articles which are subject to tax, with the duties laid on each. The word is quite commonly used to embrace also the legislative action on the subject. *Protective* tariffs so-called, designed to encourage certain kinds of home manufactures will be considered in another place. The topic is here to be noticed only as a *revenue measure*, one form of indirect taxation. The duties on all articles included in the tariff are paid by the importer, at the port of entry, before he can take possession of his goods.

Duties are imposed in two forms, *specific* and *ad-valorem*. *Specific duties* are certain sums charged on articles, *by the piece, the pound, the yard, the gallon*, etc., without reference to the value. *Ad-valorem duties* are indicated by *a defined percentage of the value of each class of goods*, as named in the importer's invoice. Each of these forms has its advantage and its difficulties. Specific duties are *simple* and *clear*. The collector needs to know only the quantity of the goods, and easily reckons the duty to be paid. But the tax in this case is very *unequal*. Suppose the duty laid on tea to be ten cents per pound. The tea which the poor consume, costs thirty cents a pound; the better quality used by the rich costs a dollar or more. This involves a tax in the one case, of thirty-three and one-third per cent, and in the other of only ten per cent. Ad-valorem duties lay the taxes more equally, but involve more difficulty in the collection, since the value as well as the quality of the goods must be ascertained. Hence a temptation on the part of the importer to present a false invoice. To counteract this, the government must employ a host of experts to examine and estimate the values of goods. These often come into altercations with the importers, and sometimes refuse to recognize an invoice that is honest and true. In American tariffs, sometimes the one principle and sometimes the other has prevailed. Sometimes, as in the tariff now in force, both are combined, producing intricate and vexatious complications, and greatly enhancing the expense of collections. There can be no doubt that on the whole, both for the people and for the government, the best tariff is one which lays a specific duty, of moderate amount, on a comparatively short list of articles, which are not produced at home, and must therefore be imported from abroad.

American Taxation.—In the United States there are two general systems of taxation—*that instituted by the National government, and that instituted by the several State governments.* The latter includes all local taxes imposed under authority of each state by counties, cities, towns and school-districts. The national constitution authorizes Congress to impose taxes in every form, subject only to the qualification that direct taxes must be apportioned to the several states according to their respective populations, and that all duties, imposts and excises shall be uniform throughout the United States. It expressly forbids any state to lay any imposts or duties on imports or exports, except for executing its inspection laws. In consequence of these constitutional provisions, the taxes paid by the national government have been hitherto, with only slight exceptions, *indirect,* while the state governments rely almost exclusively on *direct* taxes. The two systems thus combine two methods, in a way which secures the advantages of each, with as little drawback of disadvantage as is possible.

The proceeds of *duties on imports* proved sufficient to meet the needs of the general government, for the most part, until the recent war of the Rebellion. To provide for the heavy expenses of that war, and for the consequent debt, resort was had to four other forms of taxation, which deserve a brief notice.

a. Excises. These are imposts laid by Congress on certain specified articles of domestic manufacture. They are collected by the sale of stamps to be affixed by the manufacturer or by an officer of government, before the goods are thrown upon the market. The amount of the excise is in each case added to the price of the article, and thus the tax is paid by consumers. Such a tax must work to the disadvantage of home-production, unless corresponding duties are imposed on the same articles when imported. It involves the inequality which we have seen to be incident to all indirect taxes. It also involves great expense in collection, since the government must keep agents in every part of the country, watching the manufacturing establishments and the markets, to guard against evasion of the tax. The number of articles thus taxed was quite large at first, but now, liquors and tobacco yield the greater part of the internal revenue from this source.

b. Stamps. This is a tax levied by requiring a stamp representing a small value, to be attached to various instruments and forms of business, in order to give them legal force. The expense of the postal service is nearly provided for by this means, at a very slight charge to the people. This method is also applied to bank-checks, notes, deeds, mortgages, contracts, wills, etc. Such a tax touches directly the wealth of the country *in transition,* and just at the points too, where it needs government protection to give it a certain kind of security. It comes upon those best able to bear the burden. It accords with Mr. Smith's fourth maxim, for the cost of collection is very light and nearly the entire amount taken from the people's pockets goes into the government treasury. When first introduced, it seems a little vexatious, and it takes time for a people to become habituated to it, but once fairly instituted, it is hardly felt, and is found an economical and equitable mode of distributing the public burdens. Great Britain employs it very successfully, raising over fifty millions each year from the sale of stamps, to be thus applied. It is to be regretted that our government almost entirely abandoned this measure, just when it was fairly inaugurated after the war.

c. Licenses. This is a form of tax quite akin to that last named. It is imposed by requiring men to buy of the government, at specified rates, *certificates authorizing them to engage in certain kinds of business.* It has been employed by both the Federal government and by state governments. It is objectionable because it discriminates unequally among industrial occupations. It is urged in its favor that it draws from certain parties, such as peddlers, insurance companies outside of the state and some professional men, a just return for the advantage they derive from the protection of the government, which return could not be secured in any other way. The principle as applied to occupations regarded as mischievous, such as dram-selling, has another aim than to raise a revenue, that is, to restrict an evil. In that application, it has to do with the morals of society, as much as with its economies.

d. Income tax. This is a form of direct tax, levied by imposing a certain percentage upon the annual incomes of individual citizens. According to Mr. Mill's definition, this is certainly a *direct* tax; although the American Congress when instituting it, declared it not a direct tax in the sense of the term used in the constitution with respect to the apportionment of direct taxes among the states.

Theoretically, this is the most equitable of all taxes, since it touches men exactly according to their abilities. But as we have seen, if the percentage is *uniform* for all incomes, it involves an *inequality* which bears heavily on those whose incomes are small. To relieve this, two measures are employed. The first is to exempt all incomes below a specified amount. The other is to establish two or three grades of income, and make the percentage greater on the larger incomes. The chief objection to an income-tax is the difficulty, almost impossibility of ascertaining men's real incomes; partly because many keep no accurate accounts, and partly because few, comparatively will make truthful report of their incomes. Inquisitorial measures to discover actual incomes are exceedingly offensive. Moreover, as in the case of excises, the labor and cost of collecting this tax involves a serious drawback on the public treasury. Notwithstanding all this, the British government has employed this method of taxation for forty-five years, with such success that nearly one-sixth of the annual revenue of the kingdom is estimated to come from this source. The United States collected an income tax for ten years, from 1863 to 1872 inclusive. The largest amount raised in any one year, by this means, was about sixty-one millions in 1866, from four hundred and sixty thousand one hundred and seventy persons assessed. Actual experience under the law tended to relieve difficulties and objections. When most efficiently carried out, concealment and dishonesty were not probably greater under this form of tax than are practised continually under the attempts of the states to levy taxes on miscellaneous personal property. In both cases the needed relief must come from the moral culture which forms *good consciences.*

State Taxation.—Under state authority, all taxes are *direct*, laid upon *persons* by poll-taxes, upon *property* by assessment and upon certain kinds of *business* by licenses. The *poll-tax* is ordinarily a small amount levied upon every male citizen who has reached his majority. It recognizes the protection which the government extends to persons as well as to property. It is made in theory, a condition of the electoral franchise ; he who pays the tax and votes being regarded as the head of a family, in both acts, representing a household. It is found difficult and expensive to collect this tax from all, and hence the theory is seldom carried out. Some of the states lay no poll-tax.

Taxes on property are imposed in all states by essentially the same method. The state authority, by statute, requires the election or appointment of assessors in every town and city, who make a valuation of all property which the law subjects to taxation. Real estate, and articles open to their inspection, such as live-stock, vehicles, etc., are estimated by the assessors. Other personal property is returned in prepared lists by the owners, who may be required to make oath to the completeness and truthfulness of their returns.

In some states, however, the assessor sets down his estimate of each one's personal property, and if the taxpayer thinks the estimate too high, he is permitted "to swear it down," as the phrase is, that is, to declare under oath what is the true amount of his personal property after deducting his indebtedness.

Real estate is commonly set down at from twenty-five to thirty per cent less than its market value. Since assessors in different places may adopt different standards of valuation, the original assessments are in most of the states referred to *boards of equalization* appointed for each county, and their judgment is subsequently reviewed by a general board for the state. Upon the basis of the valuation of property so determined, the taxes for state purposes are apportioned to each county, city and town. By general statute, or by special city charters, each county, city, town and school-district is authorized to levy taxes for local purposes. These also are apportioned on the basis of the state valuation, except in case of certain improvements in cities, such as opening, paving and lighting streets, which are charged upon the adjoining property in proportion to the benefit conferred. Generally, all these taxes both for state and local purposes are collected in each town or city ward, at one time, by one collector, who is furnished with a tax-list covering all.

If other means fail, goods may be levied on to secure the taxes, and according to prescribed forms of law, lands may be sold for delinquent taxes, the title thus given, being made complete and valid after a certain period allowed the original owner for redemption.

In most of the states, local taxes are adjusted on the principle generally admitted that *equitable taxation requires property of every kind to be assessed.* In actual experience however, property in the form of *real-estate bears by far the larger share of the burden.* Personal property can be easily concealed or removed by those who wish to evade their share of contribution to the public weal. On this subject, the prevalent moral sentiment is low and consciences are weak to resist the strong temptation to make false returns and even to commit perjury, when detection is almost impossible. The difficulty of attaining a perfect result is aggravated by the complexity of our government. Property in railways, banks, etc., being within the jurisdiction of one state, while the owner resides in another, involves peculiar difficulties. These and other like considerations have occasioned much earnest discussion, on the part of economists, lawyers and statesmen, respecting the property on which taxes should be imposed.

We may not here enter at length into these discussions, but one question which especially involves some principles of our science deserves some notice.

Are Evidences of Debt, Property, *on which taxes should be levied?* In defining wealth, we showed that notes, bonds, mortgages and the like are not, of themselves, any part of the general wealth. They indicated only what the lawyers call "*an inchoate title*" to possession, a mode in which some real wealth is distributed. They are symbols, not substance, whose multiplication makes no increase of real wealth. Suppose A. B. holds his neighbor's note for two thousand dollars, secured by mortgage on his farm worth four thousand. The property is one, the farm. The note and mortgage only indicate that A. B. has a lien on that property for one half its value. The loan made and the security given have added nothing to that value. That property is rightfully subject to taxation. *Who shall pay the tax?* Strictest equity might admit that *each of the parties should pay a half;* and that might be established as the rule. But in the very terms of the mortgage, the owner of the farm engages to pay all taxes that may be levied on the land, and this is a part of the contract, the interest to be paid on the amount borrowed, being adjusted to that usage. Now, if the owner of the farm is taxed for its full value, and A. B. is also taxed on the mortgage he holds, there is a *double taxation* on two thousand dollars. The fact is obvious and cannot be controverted. Where this rule prevails, there is evidently an obstruction to the free flow of capital, which works disadvantage to all economical interests.

The case of a note given without security is essentially the same. Suppose for instance, that C. D. sells his neighbor a horse for one hundred dollars and takes in payment a note for the amount, payable at the end of six months, without security, depending on the man's ability to pay out of the avails of his industry, in the meantime. Here evidently, there is only one item of property, that is the horse. To lay a tax on the horse for its new owner to pay, and to tax C. D. on the note he holds, is evidently doubling the taxation. When the note is paid, the horse being in good condition, another property appears in the money received by C. D., and on that he may properly be taxed. To vary the case a little, suppose that instead of a note payable in money, the purchaser of the horse, being a wagon-maker, gives an obligation to build for C. D. a wagon worth one hundred dollars, to be finished and delivered at the end of six months. Evidently, the horse is, but the wagon is not in existence when the contract is made. When the obligation matures and is fulfilled by the delivery of the wagon, there are two items of property, both rightfully taxable. But the promise pending has in it nothing real, nothing taxable. The principle runs through the whole system of *credit.* Prosperous industry is continually creating new items of property but *the credit* that runs in divers forms through all the ramifications of business, of itself *creates nothing,* and has not that "*physical actuality*" which is essential to the idea of property.

A case involving this question and also the question of state jurisdiction respecting taxes has recently occupied the attention of the Supreme Court of Errors of the State of Connecticut, and is now, on appeal, before the Supreme Court of the United States. Mr. K., a citizen of Connecticut, had loaned money through an agent, a citizen of Illinois, on bonds secured by deeds of trust, on real estate, in the city of Chicago. Each deed of trust provided that the borrower should pay all taxes assessed on the property without abatement on account of the mortgage lien, and the taxes on the entire property were accordingly paid under the laws of Illinois. The Connecticut collector added the amount of the loan to Mr. K.'s tax list in that state, and when payment of the tax was refused, proceeded to levy his tax-warrants on real estate belonging to Mr. K. He brought the case before the court, by petition for an injunction. A majority of the judges on the bench decided that the bonds were taxable, and that it came within the jurisdiction of Connecticut to lay and collect this double tax. Judge L. S. Foster, however, gave a dissenting opinion. His judgment on the question now before us is thus clearly and forcibly expressed. "*Property and a debt*, (considered as a representative of the property pledged for its payment,) *constitute but one subject for the purpose of taxation.* The tax being paid on the property, without diminution on account of the debt, nothing remains to be taxed. The debt indeed, aside from the property behind it, and of which it is the representative, is simply worthless." We believe that this opinion has all the force of an axiom of political economy. We trust that the court of last appeal will sanction this opinion and thus hasten the day when it shall be generally acknowledged and applied in the imposition of taxes, to the correction of much unsound and mischievous legislation, and to the promotion of equity and morality.

CHAPTER XIX.

FOURTH DIVISION.—EXCHANGE.

The Nature of Exchange.—In a broad, general view, *Exchange is a part of the machinery of society for the transfer of wealth from producers to consumers.* It is a very complicated piece of machinery, as clearly appears if one will undertake to trace the cotton which enters into the structure of the shirt he wears, back to the field on which it grew. It is a machinery whose range of operations is co-extensive with the surface of our globe, as will be seen, if one will but consider how many parts of the world are made to contribute to the sum of daily comforts with which his table and his home are furnished. Hence, in the science of Political Economy, it holds a place of highest importance; so that it has been proposed to substitute as a title for the science, the term *Catallactics* or the science of Exchanges.

The general arena of exchange is called the *Market*, and in all the processes of production, the market is the object most nearly and directly contemplated. There, whatever is produced, except the very little of his own products which a man consumes, is first to be disposed of; and in every step of the process, the question is before the producer's mind, what will this article bring in the market? This will be determined by the answer given to two other questions. First, *What want or desire of man will this article gratify and how intense is that desire?* and Second, *What outlay of labor and capital is requisite to* *produce this article?* Thus, on the broad field of the world's exchanges, commodities, in almost infinite variety, meet and mingle, each marked with a sign of *Value* which is a simple exponent of these two elements, *utility*, or desirableness and *cost.*

More specifically, we may say, *Exchange is a transaction in which two parties voluntarily transfer to each other the right of property in certain items of wealth, which are regarded as equivalents.* This transfer must be voluntary by both parties, else it involves robbery. If without the right of property, anything is given in exchange, it is fraud. If one gives in exchange a horse which does not belong to him, he confers no right of property, for he has none to confer, since the real owner may, at any time, reclaim the animal. It is often said that exchange may be either of *commodity* for *commodity,* as when one gives a table for a pair of boots; or of *commodity* for *labor,* as when one gives fifty pounds of flour for a day's work at mowing; or of *labor* for *labor,* as when a mason gives a day's work to a carpenter on condition that the carpenter shall on call, give a day's work at his trade, in return. This is proper enough as indicating in each instance, the precise form of the transaction. But in reality, the labor is not ever, itself the thing contemplated, but the value, in some form of wealth, which is the product of the labor. In discussing the principles of distribution, we saw that even when wages are paid for labor, the employer has his eye always on the value to be produced, though it may be that several kinds of labor must be combined before the value appears in a form to be exchanged.

Value is thus the central term of this branch of our science. Let its definition, as given in the second chapter, be here distinctly recalled.

Value is purchasing power, or that quality in an object which gives it power to command other objects in exchange.

Value is always a relative term, and indicates not an absolute quality of an object, but a power revealed by a comparison of it with another object.

Value may be determined *by comparison between any two objects,* and must not be confounded with *price* which makes *money* the one thing with which every thing else must be compared.

Value implies utility, or adaptedness to gratify desire, but is to be distinguished from it, since many things of the highest utility such as the air we breathe, have no value, because they are not the fruit of labor, and cannot be exclusively appropriated.

Hence, as was just stated, *Value is a simple exponent of the two elements, utility and cost.* These terms respectively define the limits of value. The *maximum* limit of value in an object, is defined by its *utility* or desirableness. The *minimum* limit of value in an object, is fixed by its *cost.* Objects presented for exchange are always primarily compared with respect to these two considerations.

Between these two extreme limits however, there is room for considerable variation of value under *the law of supply and demand.* By *demand* is meant the extent of desire for any article. Supply expresses the quantity of the article in the market, ready to meet that desire. When demand is great in proportion to supply, value is enhanced. When supply is great in proportion to demand, value is reduced. The law is expressed in a simple formula, applicable to all things that can be exchanged, thus, *Value rises directly as the demand, inversely as the supply.* Hence in all transactions of exchange, the state of the market needs to be carefully considered. There, *free competition* tends to produce an equilibrium between supply and demand. When the supply of any article is excessive, its value sinks so that it will not command an equivalent for the labor and capital necessary to produce it; the production of it is therefore curtailed till the supply is reduced to a level with the demand. When on the other hand, the demand for an article is excessive, the consequent rise in value makes labor and capital in that form of industry more remunerative than ordinary, and thus its production is stimulated till the supply is brought up to a level with the demand. To express the expense of labor and capital involved in the production of any commodity, the term *Cost* is employed. Competition tends to make cost the general standard of value. Hence we have for the rates of exchange, or the value of articles transferred, this general formula.

Value=cost+or—the effect of the ratio of demand to supply.

The effect produced by variation of the ratio between demand and supply will be greater or less according to several circumstances.

a. The Durability of the commodity. An increased supply of articles, such as fresh fruit and fish, which are quickly perishable, causes a great reduction of value. On the contrary, the market value of a durable article like iron ware and cloth, is but slightly affected by increased supply.

b. The Ease or Difficulty of Increasing the Supply. Manufactured articles can generally be produced easily and quickly, after the facilities are once established. The farmer's crops come in but once in a year. Hence a short supply of wheat or potatoes raises the value of those articles much more than a short supply of woolen goods or shoes advances the value of those articles.

c. The character of the article as a Necessity or a Luxury. Under the pressure of scarcity, men will dispense with luxuries, rather than pay their enhanced price. Such articles as bread and fuel, they must have at any price. In the first case, the demand declines as the value rises on account of a diminished supply, and the ratio adjusts itself. In the other case, the demand is intensified as the value is advanced by scarcity, because the limits of man's power to endure hunger and cold admit of but little room for any adjustment, and "all that a man hath will he give for his life."

d. The relation of the article to incoming or outgoing Fashion. The freaks and the tyranny of fashion are proverbial. In highly civilized society, her sway is undisputed. Those things which are made to meet her demands are called "*fancy-goods.*" Both the producer of these articles and the dealer in them must study carefully her changing moods. The demand for articles conformed to the latest style is exceedingly intense and gives them a value far above cost; but the reaction is apt to come suddenly, following no definable law. An over supply of goods that are just going out of fashion can be exchanged only at a value greatly below cost, though their utility, as means of comfort, may not be in the least impaired. The successful tradesman sees to it that his gains at the hour of flood-tide are sufficient to compensate the loss incident to the ebb.

The fundamental principles of Exchange then are few, and may be clearly and concisely stated. It is of the highest consequence that they be well understood. Therefore, repeating some things already presented, we give here a summary statement, adopting the distinctions, and to a considerable extent the precise language, of Mr. J. S. Mill.

All things that are bought and sold may be distributed into three classes. First, *There are things of which it is physically impossible to increase the quantity beyond cer-*

tain narrow limits. Such are ancient sculptures, paintings of old masters, rare books or coins, and wines that require peculiar conditions of soil, climate and exposure. Second, *There are things which at a moderate outlay of labor and capital, can be multiplied indefinitely.* The majority of things bought and sold belong to this class. With laborers and machinery enough, such things as cottons, woolens, shoes, hats, might be multiplied a thousand fold, or at least, till the measure of the earth's capacity to afford materials is reached. Third, *There are commodities which can be produced in limited quantity at a given cost; but to increase the quantity involves a much greater proportional cost.* To this class belongs the agricultural produce of a limited area of land. A field that yields twenty-five bushels to the acre, may be made to yield forty bushels, but the cost will be much more than doubled. With these distinctions and points before presented, in mind, the following principles will be plain and almost self-evident.

1. *Value is a relative term.* The value of a thing means the quantity of some other thing, or of things in general, for which it can be exchanged. The values of all things can never therefore, rise or fall simultaneously. There is no such thing as a general rise or a general fall of values. Every rise of value supposes a fall, and every fall a rise.

2. *The temporary or market value of a thing depends on the demand and supply;* rising as the demand rises and falling as the supply rises. The demand, however, varies with the value, being generally greater when the thing is cheap than when it is dear; and the value always tends to adjust itself so that the demand shall be equal to the supply.

3. *Things have also a permanent, or as it may be called a Natural Value,* to which the market value, after every

variation, always tends to return; and the oscillations compensate for one another, so that on the average, commodities exchange at about their natural value.

4. The natural value of some things is a *scarcity* value; but *most things naturally exchange for one another in the ratio of their cost of production*, or at what may be termed their *cost-values*.

5. *The things which are naturally and permanently at a scarcity value, are those of which the supply cannot be increased at all*, or not sufficiently to satisfy the whole of the demand which would exist for them at their cost value.

6. *A Monopoly value means a scarcity value.* Monopoly cannot give a value to anything, except through a limitation of the supply.

7. Every commodity of which the supply can be indefinitely increased by labor and capital, exchanges for other things proportionally to the cost necessary for producing and bringing to market the most costly portion of the supply required. *The Natural value is synonymous with the Cost value*, and the cost value of a thing means the cost value of *the most costly portion of it which the market demands*.

8. If one of two things commands, on the average, a greater value than the other, the cause must be that it requires for its production, either *a greater quantity of labor, or a kind of labor permanently paid at a higher rate;* or that *the capital or part of the capital which supports that labor must be advanced for a longer period;* or that *the production is attended with some circumstance which requires to be compensated by a permanently higher rate of profit.*

Assuming that there is, as there ought to be, free competition in the processes of Exchange, as in the processes of Production, the perturbations of value caused by variations of demand and supply continue only during a period, which cannot exceed the length of time necessary for altering the supply. Under the pressure of competition, demand and supply always rush to an equilibrium ; but the condition of stable equilibrium is when things exchange for each other according to *their cost of production*, or at what is fitly called their *natural value.*

The Necessity of Exchange.—If every man were able and content to live by himself, upon the fruits of his own labor ; or if the members of each household could satisfy all their desires by the proceeds of their joint industry, there would be no occasion for exchanges. But with his unfolding intelligence, man's desires multiply and reach out beyond the range of his present attainments, beyond the range of his own ability too. At the same time, to his searching inquiries, nature reveals new means of enjoyment which both gratify and stimulate desire, adding to a present gratification of the senses, the zest of discovery and achievement, and the pleasure of hope which fondly anticipates more and better things to come. There are also in man's nature, as a social being, interests, attractions, sympathies which multiply and widen his associations and his opportunities, as both a giver and a receiver of good things. Thus individuals are grouped in families, families unite in communities, communities form states and nations, and nations all round the world, interlock their interests. Under a law of interdependence which necessitates mutual exchanges—the giving and receiving of benefits—human intercourse runs into civilization, and no limits can be set to either its extension or the variety and intricacy of its relations. *The structure of the world furnishes the means of exchange or trade ; and the nature of man compels him to trade. Exchange is therefore a necessity by the fixed conditions of our being.*

The same thing appears in another light. We have seen that for the production of wealth, *human labor must* *be applied to objects of nature.* The labor thus put forth establishes *a right of property,* partial or incomplete, over the objects produced; and the title to possession thus secured, is *exclusive and transferable.* But different persons are constituted by the Creator with *different aptitudes for different kinds of labor,* and with corresponding likes and dislikes with respect to occupations. Both the comfort of the individual and the general advantage are promoted by every one's devoting himself to that occupation which he prefers, and for which he is especially fitted. Each will do his best and achieve the largest results when his efforts are put forth in accordance with the bent of his own genius and inclination. Under such a distribution of employments, however, every man becomes the producer of but a single product, or, at most, of one kind of wealth, and of this he produces far more than he can use for his own gratification. At the same time, he has desires for the enjoyment of a thousand other objects which must be produced by the industry of others, each of whom has a surplus like his own to be disposed of. All this varied, accumulated wealth must be utterly useless, unless by some process of mutual exchanges, *each can get what he wants by giving what he can spare.*

Furthermore, we have seen that for the most economical and profitable production of wealth, *a much more minute* division of labor is requisite. The diverse labor of twenty men may be combined in the production of a single object. The part which each performs is of little or no use to anybody, except as it enters into the combined result. He who in a watch-factory, for instance, devotes all his labor to making little screws by the thousand, can put the things which he produces to no immediate use for himself; perfect and beautiful as they are, a bushel of them will do nothing to satisfy the cravings of hunger. A hundred men may each contribute some part towards the structure of a steam-engine and no one of them can ever turn to his own benefit either the part which he makes or the whole machine, if he were allowed to appropriate it. In this case, and in hundreds of similar cases, there is an absolute necessity of some system of exchanges through which *the one total value* made up by the labor of many different hands, *can be broken up and distributed so that each one's varied wants may be met and satisfied.*

We may say then, in brief, that *the diversity of nature's resources, the diversity of human capacities, and the wide reach of human desires, all of which prescribe for human industry the principle of division of labor, necessitate exchange.* The conditions of our being demand the processes of exchange as imperatively as the processes of production. Without exchange, there could be no division of labor, and of course only the smallest possible amount of production. Without exchange, there would rarely be any stimulus to labor, for labor could add but little to our means of gratification, beyond the most absolute necessaries of life. There would be no stimulus to form society, since, as man depended solely on himself, he might as well be solitary as social. Hence, all progress in civilization would be barred, and the generations of men would be held forever within the limitations, doomed to the comparative isolation of the savage state.

The same principles apply with equal force to the exchanges between different *nations.*

The aptitudes of different nations for the creation of different products, has in many cases been fixed by unchangeable, geographical, and physiological law. Cotton, coffee, spices, dye-stuffs, sugar, rice, and many of the most valuable fruits and medicines, can be cultivated only in southern latitudes. Wool, wheat, and bread-stuffs generally, flax, and the most valuable animals, are produced only in temperate climates. Iron is found in northern latitudes, and furs, hemp, and feathers are brought from climates still further north. One country is better adapted to commerce, another to agriculture, and another to manufactures.

Besides, as we have already shown, a nation *at one period of its history, is better adapted to one sort of production than to another.* When capital is scarce and land is cheap and fertile, a state is better adapted to agriculture; when capital becomes abundant and land dear, it becomes gradually better adapted to manufactures. Thus nations, as well as individuals, both by original endowment and accidental circumstances, have their special adaptations to the creation of particular products. Nations are like individuals, disposed to avail themselves of the peculiar advantages bestowed upon them by their Creator. Self-interest teaches them this lesson with sufficient clearness, and they willingly practice it, if left to their own natural instincts.

It is also evident that, by each nation's devoting itself to that branch of production for which it has the greatest facilities, either original or acquired, its own happiness will be better promoted, and a greater amount of wealth will be created, than in any other manner. And while all nations thus appropriate their industry, a much greater amount of products will be created for the whole human race, than by any change that could possibly be made. If Cuba should relinquish the raising of coffee and sugar, and devote herself to the raising of wheat, and New York, relinquishing the culture of wheat, should betake herself to the raising of coffee and sugar, would not both communities be poorer, and would not the price of coffee, sugar, and wheat be increased over the whole world?

But, while it is thus evident that every nation is intended by the Creator to improve its own advantages, by producing that for which it has the greatest facilities, it is also the fact, that *every nation, and every individual of that nation, desires the productions of every other nation,* and is happy in proportion as they are enjoyed. What nation could be happy without the cotton of the south, the hemp and iron of the north, or the wool, wheat and manufactures of temperate climates? Nay, let any one look at the clothes which he wears, the furniture of his room, or the food and utensils of his table, and he will be immediately convinced, that every latitude of both hemispheres, and almost every country on the globe are tributary to his happiness. His own country has peculiar adaptations, but they are adaptations for but few products, while every citizen of that country requires for his convenience, nay, almost for his existence, the productions of every other country. These desires can be gratified only by national exchanges. Hence we see that *national* exchanges enter into the constitution of things under which we are created. as much as *individual* exchanges.

And the final cause of this constitution is in both cases, equally evident. Individuals are made thus dependent upon each other, in order to render harmony, peace, and mutual assistance, their interest as well as their duty.

And for the same reason, nations are dependent upon each other. From this universal dependence, we learn that God intends nations, as well as individuals, to live in peace and to conduct themselves toward each other upon the principles of benevolence. Where all are mutually dependent, no one can prosper without increasing the prosperity of all, nor suffer without bringing suffering upon all. Hence, it is as truly our interest to seek the happiness, peace and prosperity of other nations, as it is to seek the happiness, peace and prosperity of our own nation.

The Agents of Exchange.—The business of exchange is obviously a distinct department of useful industry. By it, commodities, after they are produced, are brought within the reach of consumers, so that they can have them in such places, at such times and in such quantities as are most convenient. This involves labor, and so far increases the *cost* of the objects; it also adds to their *desirableness;* hence, in both ways their *value* is increased. The value of commodities in the last exchange which passes them to the consumer is, on the average, probably double that at which they pass from the hands of the original producers. We have no reason to complain of this, for their utility as well as their cost, is increased by every step of the process. Coal at the mouth of the Pennsylvania mines cannot minister to the comfort of a home in Chicago. The bales of calicoes which are turned out of the mills in Lowell, cannot clothe the farmers' daughters on the Illinois prairies, until they have been transported, broken up and distributed so that the keeper of the country store can show the goods and measure off by the yard just what they want. The poor laborer, who easily buys a dollar's worth of sugar at a time, would deem it a hopeless undertaking for him to pay for a barrel of the article at once. The *consumer* can well afford to pay for having things presented, so that he can get them just where and when and as they will best meet his wants.

On the other hand, the *producer* is no less benefited by this intermediate agency. In civilized society, labor is divided so that one raises farm produce, another works on iron, another on wood and another on leather, etc. Now, if each one is obliged to suspend his labor and go out to find purchasers for his products, much time will be lost. It would clearly be a great benefit to the whole community if while others are busy with their various forms of productive labor, one should devote himself to the business of making exchanges. Each producer might then deposit with him whatever he had to offer in the market, and take in exchange whatever he found adapted to his own wants. Meantime, he who gives his entire attention to exchanges, learns the wants of the community, acquires by habit good judgment in estimating the quality of the articles he handles, and exercises his invention to facilitate the satisfaction of wants, to the advantage of all. Thus, *the principle of Division of labor* which adds much to the economy of production, is equally applicable to the industry of exchange. It requires that certain persons devote themselves exclusively to this labor of effecting exchanges, and that they receive a fair compensation for their service. Both producers and consumers share in making up that compensation by the percentage charged on the values transferred ; that is, the producer sells his products to the exchanger for a little less than he would receive if he sold them directly to the consumer, and the consumer pays the exchanger a little more for what he wants than if he bought directly of the producer. But the expense of conducting the exchanges is far less than it would be without such intervention.

Merchants is a general name for those who devote themselves to the business of exchange. But the principle of division of labor applied to this form of industry, introduces a considerable variety of agents with a corresponding diversity of names. We shall not attempt to present a full list of the names, nor a full exposition of the various forms of service rendered. But a few may be specified to set forth in a general way, the phases and functions of the world's multiform and wide-spread commercial operations. Since by its very nature, exchange always involves giving and receiving, we must recognize in the commerce of every community and nation, *two great currents of trade—an outgoing current and an incoming current.* The outgoing current bears away what a people have to spare; the incoming current brings back what a people want. Each of these currents has its own agencies, at different stages of the movement.

Let us suppose ourselves in a section of country whose chief productions are the fruits of agriculture—in the grain regions of the west or the cotton regions of the south. Each farmer's crops bring him a surplus quite beyond what he can use for his own needs. How is he to dispose of it? When the country is new, he has no alternative; he must himself transport it twenty, fifty, a hundred miles, it may be, to the nearest place of trade, and there make his sale, and with the avails purchase whatever he most needs. But as soon as settlers are sufficiently multiplied, some one opens a store in the farmer's immediate neighborhood. We call him a *Retail merchant,* for he has all sorts of goods to sell, in quantities as small as any may wish. For the goods he sells, he is willing to receive whatever his customers have to spare, making his own arrangements for transporting the produce to a larger market. His title, retail-merchant has respect only to his sales in small quantities. But for the time, he occupies a double position and fulfills a double function. He stands at the extreme end of the line of incoming trade, for the articles which he sells making the last transfer, that passes them directly to those whose wants they are to satisfy. He stands also at the beginning of the line of outgoing trade, gathering up those surplus products of his neighborhood which, starting on their course from his hand, are to float on the current of trade, half round the world, it may be, to find their ultimate consumers. As population grows more dense, and wealth increases, another agent appears on the ground. He is called sometimes a *middle-man,* sometimes a *produce-buyer,* sometimes a *commission-dealer.* By arrangement with some house at a commercial centre, he is autherized to buy for others the grain, the cotton, the beef, the pork, the wool, the eggs, the butter, the cheese, or whatever of one kind or of many kinds of produce may be ordered, and is compensated by a percentage or commission on the values purchased. To him the store-keeper readily resigns one part of his business, and the rills from many fountains are gathered into a regular flowing stream. With the introduction of railways, come in the *warehouse-men*, one at every station, who works in a small way to send a portion of the country's products into the great warehouse or elevator of his correspondent in the commercial emporium. The farmer now has his option either to sell outright to the agent near home, or to send what he has to the distant city, there, for a small fee, to be stored, while he takes his chances with the general market. So we recognize in the interior city, other agents connected with the outgoing current, such as the *Consignee* and the *Produce-broker*, who pass on the stores accumulated in Chicago and Buffalo, to the *shipping-merchant* of the great seaport, New York or Baltimore, thence to be exported to the ends of the earth, as the needs of men may require.

In former times, when manufactured articles were mostly made by hand in a small way, at the scattered homes of workmen, such products were gathered and thrown upon the current of trade, in much the same manner as that just sketched. But the extensive use of machinery in these later years, has concentrated manufacturing industry in large establishments, whose products are passed out upon the currents of trade through the agency of *Factors or commission merchants.* Each large factory or mill has its agent of this kind in one of the great commercial centres, to whom the greater part of the products are sent, as soon as finished, and he manages the sale and distribution of them in the general market, receiving his compensation, sometimes by salary, oftener by a percentage on the amount of sales. A *domestic factor* is one who renders this service in the country in which the goods are made; a *foreign factor* attends to the business in another country.

To understand the functions and agencies connected with the incoming current of trade, we take our stand at the port of entry, say New York. Here the agency of the *Importer* is first to be noticed. He studies the wants of his own country and the products and prices of foreign countries, generally with respect to a particular kind of commodities; and as a real purchaser, orders what he thinks the needs of the country demand. The goods thus imported he sells generally in bulk, by sample, to the *Wholesale-merchant.* He opens them more fully and sells by bale or case to the *Jobber.* Of him the *Retail-merchant* buys by the piece and smaller package, and through him, as he passes them to his individual customers in such quantities as they desire, the distribution is complete.

To all these agents, must properly be added the whole class of *Bankers, Brokers and Dealers in exchange drafts,* etc., who have to do with *money and credit,* the *instruments* of exchange; also, those who as *Underwriters* and *Insurers,* give special attention to guarding the risks, by land and by sea, involved in trade. But these will come up for more particular notice in another connection.

Thus in outline, we get a view of the manifold processes and agencies of exchange. In the actual operations of commerce, these functions are further divided, partially combined, variously diversified, minutely ramified, so that *the complications of trade become extremely intricate;* and yet by some hidden law of self-adjustment, the machinery works out its legitimate result, so that the wants of men are met, with little waste of the products of human industry. It is an exceedingly economical arrangement. Though the price which the consumer pays for his yard of cloth covers something paid to the agent of every successive transfer through which it has passed, yet it is less, by much, than it must have been without this organized system of exchange. *Exchangers* are as necessary to the *cheapness* of production, as *producers* themselves. Let competition be free with both producers and exchangers, and all things will come into the consumers' hands as nearly as possible at their *natural value*. The machinery of exchange is worth all and more than all it costs. We see how absurd is the outcry sometimes made against those engaged in mercantile business that *they produce nothing*. The general tendency of their service is *to cheapen* everything offered in the market and to enrich the market by a thousand-fold multiplication of comforts and luxuries for the life of man. The laborer may sometimes feel like complaining, that the merchant has an easy time sitting at his desk, while he is sweating at his hard toil; that the merchant rides in his carriage, while he trudges on his weary way afoot; that the merchant is rich, while he is poor. But if he considers how a hundred merchants fail, where one succeeds; how intense and wearing is the merchant's *brain-work;* how sickening often amid his perplexities, is the showy style of his mode of living; and above all, how intimately connected are the services of the mercantile class with both the wages which he, the laborer earns, and the cheapness of everything he buys in the market for his support, he will hush his complaint, under the conviction that no lot in life is free from its trial, and that the interests of men of different occupations are so woven together that adversity to one class is adversity to all, and true prosperity for one is prosperity for all.

While we thus fully recognize the useful, indispensable service rendered by the agents of commerce, sound economy requires that the number and expense of these agencies be reduced as far as practicable, consistently with the free and effective action of this important machinery of civilized society. At the same time, there is occasion for warning and protest against the *abuse* of the power in their hands which we see sometimes practised by these agents. A single trader or a company of traders combining may avail themselves of their knowledge of the state of the market to produce *an artificial scarcity,* that they may by suddenly raising prices rob the people and enrich themselves. Thus in the grain trade which centres in Chicago, by secret conspiracy, such "*corners in wheat,*" have been produced, to the serious injury of other dealers, and of consumers and indirectly of the farmers with whose produce they thus gamble. Sometimes an opposite course is taken, and the trader uses an advantage he has gained for the hour to produce *an artificial* but *temporary cheapness,* to be followed by a sudden rise of prices which will more than compensate his first loss. Too many of the so-called "Boards of Trade," not only tolerate but countenance and encourage such abuses of trust and power. Both justice and philanthropy cry out against such proceedings, and the word of God seems to warrant the ban of righteous indignation—"He that withholdeth corn, the people shall curse him; but blessing shall be upon the head of him that selleth it."

CHAPTER XX.

MONEY AS AN INSTRUMENT OF EXCHANGE.

Money.—Exchange, like every other department of industry, may be greatly facilitated by the use of proper instruments. Simple *Barter*, that is the exchange of one commodity for another without the intervention of any common standard or medium, may meet all the exigencies of savage life, where private property is restricted to a narrow range and exchanges are few. But as society emerges from that state into civilization, exchange in kind becomes embarrassed by many and serious difficulties.

Suppose a man has made a table with which he desires to buy bread, meat and shoes. If shut up to barter, he must first find some one who wants a table of just that size and style. Then he must find probably three other parties who make and have to spare the articles he wants. Then by a series of negotiations with them and others, he must bring about such a division and distribution of the value of his one table, as shall give to the baker, the butcher and the shoemaker *a fair equivalent* for that which he desires from each. The outlay of time and labor necessary to effect the desired exchange in this way, must be fully equal to that required for making the table. The question naturally arises, is there not some means by which this expenditure, or the greater part of it, can be saved?

The difficulty is still greater when a compensation is to be provided for *labor*. The farmer, in the spring, calls in the help of a man to plow and cultivate his fields. This labor will create value, but months must pass before that value will appear in form to be exchanged. Meantime, the laborer has wants that clamor for *present* satisfaction; but how can those wants be provided for unless by some device which shall permit the fruits of his labor to be drawn upon, before they appear in the ripened crop? The case is yet worse with the workman in an iron foundry. How can he and his family be fed and clothed, if he must take his pay in the iron which he helps to produce? More embarrassing still is the difficulty as labor becomes minutely divided, for the most productive methods of civilized industry. When a man devotes himself wholly to making rivets for knife-handles, or to giving edge or polish to knife-blades, how is he to subsist by exchange in kind?

It would bring some relief to these embarrassments if an establishment were set up and opened as a store, where all the various articles which any in the community desire to exchange might be gathered under the charge of some one especially skilled in negotiating exchanges. But then, an ever recurring difficulty would be experienced *in adjusting the equation of value between different articles*, a shovel and a pair of boots, for instance; and for the compensation of labor, especially under the minute division of labor, scarcely any relief could be obtained. Under the pressure of these difficulties, men have been driven to the invention and adaptation of certain instruments, which bear the same relation to the operations of exchange, which tools and machines do to the processes of mechanical industry. By a common instinct of discovery and adaptation to a need universally felt, peoples of different ages and countries have taken up essentially the same means of relief; and their evident fitness for the purpose, rather than any authoritative enactment, has secured their universal adoption.

Money and Credit constitute the two great instruments of exchange. Of the two, money is both in order of time and of importance, first. It is all essential to civilized trade, and without it the other has little or no meaning. Yet credit, though only a representative or symbol of money, and always subordinate to its control, is really the working-engine which accomplishes far the greater part of the work; when properly regulated, giving effectiveness and balance to a world-wide commerce, but when abused, causing disturbance, convulsion and disaster through the entire system. A clear apprehension of the nature and functions of these two instruments of exchange is of the highest importance to an understanding of the science of political economy; it is of no less consequence to the successful practical management of mercantile business and of public finance. We attempt, therefore, a clear and distinct exposition of elementary truths pertaining to these two things, with fullness enough to indicate at least, the chief points of its practical application.

Money *may be defined to be some useful product of labor which serves as a standard of value by which wealth of every kind is measured, and as an instrument by which one kind of wealth can be exchanged for another.*

Let the two functions of money be carefully observed.

First, *Money establishes a universal Standard of Value.*

Second, *Money is a Medium for the exchange of Values.*

In its first-named function, as a means of ascertaining the relative value of different commodities, money performs an office precisely like that of a pound-weight, or a yard-stick or a gallon-measure. As each of these is adjusted to be a standard measure of a certain quality, one of weight, another of length, and another of capacity, so the money-dollar is adjusted to be a standard measure of the quality called *value.* *Whatever is thus used for the* *measurement of a quality must itself possess the quality in question.* You cannot weigh a piece of meat with a ray of moonlight, nor get the length of a piece of cloth by means of a drop of quicksilver, nor measure a gallon of alcohol with the edge of a knife-blade. No more can you define the *value* of these or any other objects by unreal notions or shadowy symbols. *Only a thing of value can measure value.*

According to our definition, value may be resolved into two elements, viz., *utility* or desirableness, and *cost,* the exponent of labor. Whatever substance then, is used as money, must be capable, in some way, of *ministering to men's gratification,* so that it shall be generally desired, and the nearer it comes to being *always and everywhere desired,* the better is it fitted for its purpose as money. It must be also a substance which *can be obtained only by labor,* and the more *uniform* the amount of labor found necessary to obtain it, the better is it fitted for its purpose as money. These elements must be *combined,* neither is sufficient of itself to form value. Nothing in the world is more useful than the air we breathe. All men desire it; without it they die. But it has no value. You cannot bring it into the market as an article of exchange, because it is furnished freely to all, without labor—it *costs* nothing. So too, there may be exhibited to you the result of weeks and months of labor on the part of one who tried to make a flying machine. After all is done, the thing has no beauty to cause it to be desired. There is no want of man which it can possibly be made to gratify. It has cost a deal of labor, but it has no value, for *it can be put to no use* whatever. The value of money therefore depends upon the combination of these two elements in the substance employed. Both are indispensable. Hence in our definition, we say that the substance of money is "*some useful product of labor.*"

It is of the highest importance that any standard of measurement should be *fixed with exactness and kept as invariable* as possible. When a standard unit of measurement for the material qualities of length, surface, volume and weight was to be determined for the French government, nearly a hundred years ago, the Academy of Sciences recommended that one ten millionth of the quadrant of a terrestrial meridian be taken. Seven years of great labor were occupied in ascertaining with nicest exactness the length of that linear base, called the *Metre*. By this, the unit of surface, the unit of volume, and the unit of weight were determined with equal care and the metric system was made as nearly perfect as any human device can be. Nature furnishes us no such absolutely fixed and invariable unit of value. But it certainly behooves men to select for their standard of value, the most stable and unalterable thing to be found in nature. All the transactions and contracts of trade depend upon precise determinations of the values involved. If the standard of measurement is variable, all these operations must be attended with uncertainty and confusion. Hence the importance of securing to money the utmost possible *precision and stability of value.* "All substitutes for it, all modes of economizing or facilitating its use, are equitable and legitimate only so far as they preserve its essential attributes of precision and unchangeableness." All things are exchanged with reference directly or indirectly to their *prices;* but price is *value measured by money.* Hence money, as a universal standard for the measurement of value, is an indispensable agent of commerce.

Money in its second function, as a Medium of exchange, also performs a very essential service in the commerce of the world. The real object of all trade is to effect an interchange of *commodities.* The actual wants of men are met only as every one, by parting with one article, may secure some other article which he needs. The difficulty of doing this directly has been already noticed. That difficulty is overcome by the intervention of *Money*, a third article, which all desire, partly for some intrinsic qualities which it possesses, but more for its adaptedness to just this function of a medium. By means of it, what cannot be effected by one exchange may be easily accomplished by two. The man can sell his table for money. The money is easily divided, and the baker, the butcher and the shoemaker are quite ready for their respective portions of the money, to sell him the bread and meat and shoes which will satisfy his pressing wants. Through this medium, by two exchanges, the end is easily attained, which could not be attained by one exchange without vastly more of trouble and labor. This common medium must evidently be *some embodiment of value*, which one can safely receive for the commodity he wishes to part with, because he knows that it will be received by others *at the same valuation*, for whatever he may wish to purchase.

The essential qualities of such a common medium of exchange, are three :

First, *Precision and Stability of value*, the same quality which we saw to be of highest consequence, for the first named function of money.

Second, *Universal Acceptableness* so that it will readily be received by everybody for whatever he has to dispose of.

Third, *Divisibility* into parts, representing, without loss of value, different degrees of value, so as to furnish an exact equivalent of any required amount.

We can conceive that one substance might be adopted as a standard of value, and another employed as a medium of exchange. Thus wheat might be selected as the standard to which every thing else should be referred, and certain beautiful African shells called cowries, having been first measured and marked by that standard, might be used as counters in the actual transfer of articles. But such an arrangement would involve many inconveniences. There would always be something arbitrary and uncertain in the adjustment of the two to each other, and the necessity of keeping in mind two objects, so different, would confuse and complicate all operations. Hence the necessity that *the same substance should fulfill these two functions, and that it should combine the qualities necessary for both.*

This does not imply however, that money as a medium must be actually used in every exchange that is made. When once a standard of value is defined, different commodities can be measured by it, and then interchanged by being offset against each other according to their respective values. Thus the farmer's wife brings her basket of eggs and her firkin of butter to the village grocer. In terms of money, she sets her price for these articles, and he in like manner, names his prices for the tea and sugar and spice she wants, and the trade is at once adjusted and consummated without any *payment* of money on either side. The same thing is going on all the time, on an immense scale, in the commerce between New York and Liverpool. By processes hereafter to be explained, ship-loads of wheat are balanced off against ship-loads of manufactured goods, the values on either side amounting to millions of dollars, without the actual payment of any money. Thus through the function of money as a measure of value, the greater part of the trade of the world becomes really *exchange in kind.* Yet this cannot be, except as there is money within reach to be used as a medium of exchange when an exigency demands its interposition. *In the last settlement, the balance must be paid in money, and at every step the reckoning is kept in money's worth.*

Since wealth is continued and increased only by repeated processes of consumption and reproduction, involving an interminable succession of exchanges; and since money is the constant medium of exchange, wealth of every kind must more or less frequently, for a longer or shorter time, appear in the form of money. *Everything that has value will come at some time or other to have its price and be estimated in terms of money.* This close identification of all wealth with money, in whose form it sometimes appears, has occasioned the mistake noticed in a previous part of this work, of resolving all wealth into money, so *that money is regarded as the most desirable of all things* to be brought into a country. The best correction of this mistake comes from a clear apprehension of the true nature of money, as a simple *instrument of exchange,* fulfilling its two important functions; itself forming but a very small part of the world's wealth and capable of increasing wealth only indirectly, as it facilitates those multifarious exchanges which carry every kind of wealth where it is most needed to satisfy the wants of men.

Any article which has value may be made to perform the functions of money. Thus by different nations and in different ages of the world, various articles have been employed. Among pastoral nations, cattle have been quite commonly employed as the chief instrument of exchange. Homer tells us that the armor of Diomede cost nine oxen. So the wealth of the patriarch Job is estimated by the number of his sheep and camels and oxen and asses. Hence, probably, arose the custom among the Greeks and Romans of stamping their earliest coin with the figure of an ox or sheep. Thus the Latin word for money, *pecunia* is supposed to be derived from *pecus,* cattle. In ancient Syracuse and Britain, money was made of tin, in Sparta of iron. We find used for the same purpose, a preparation of leather among the Carthaginians, platinum in Russia, lead in Burmah, nails in Scotland, pieces of silk among the Chinese, cubes of pressed tea in Tartary, salt in Abyssinia, cowrie shells on the coast of Africa, slaves among the Anglo-Saxons, tobacco in Virginia, codfish in Newfoundland, bullets and wampum in the early history of Massachusetts, logwood in Campeachy, sugar in the West-Indies, soap in Mexico. But from the time of Abraham, when he paid (Gen. xxiii : 16) to the children of Heth "*three hundred shekels of silver, current money with the merchant*" —the earliest record of a purchase with money—till now, *gold* and *silver* have been employed as the money of the world with civilized and commercial people. In most of the cases mentioned, when other articles were employed, the *standard* of value was recognized as set by the precious metals, and on account of the scarcity of these metals, the other things named were used as a *medium* of exchange. Thus the wampum and bullets of Massachusetts, the tobacco of Virginia and the sugar of the West Indies, passed from hand to hand, to effect particular exchanges, with a commercial value, more or less distinctly recognized in terms of silver or gold. It should be noted that when anything that has been used as money is devoted to any other use, its functions as money cease. Gold coin turned into gold plate, just as really as tobacco or sugar passed to a consumer, is no longer money.

Whatever Substance is used as Money must be Universally desired as such.—Its object is to facilitate exchanges, but it can accomplish this object only by means of the willingness of the whole community to exchange for it everything which they are willing to part with. If one individual of a community prefers one substance, and another individual another, exchanges will be embarrassed by unnecessary complication, and by the useless consumption of time. And if on the other hand, any substance is thus universally desired, on account of the great facilities which it offers, and the great saving of labor which it effects, it will be immediately used for this purpose. And it will be so used without any agency of government, and even though a government did not exist, just as a man will use any other instrument for increasing the productiveness of his labor as soon as he can procure it, simply for the reason that it is for his advantage.

If the exchanges of a country were wholly *internal*, it would be sufficient that such a medium were universally acceptable in that country alone. But, inasmuch as every nation has important and extensive exchanges with other nations, it is an additional advantage to have the same substance used as a medium of exchange. That exchange is the most profitable for a country, in which it exports what is relatively most abundant at home, and imports that which is relatively most wanted at home; and imports it from that country in which, what it exports is most wanted, and what it imports is most abundant. Now it is evident that money may be accumulated in any country, so that it shall be relatively lower in value than other commodities. Thus, the precious metals may be so abundant in this country, that a merchant can procure more iron in Russia by sending a given amount of gold, than by sending the flour which would here be equal in value to the gold. It is therefore for his advantage to send the gold, and it is equally for the advantage of his country. And for the same reason, if in this country there is a relative scarcity, it will be for the advantage of other nations, as well as for our advantage, that they should send gold or silver in exchange for our products. In this manner, exchanges are made, of that which is least wanted by both parties, for that which is most wanted by both. This enables both parties to supply themselves at the lowest rates.

Besides, it is very desirable that *the value of money be as little as possible liable to fluctuation.* Now if the same substances are used in all the civilized world, this fluctuation, if not absolutely prevented, will be so restricted, as to produce the least possible amount of evil. When exchanges between countries are frequent and numerous, and the prices of all commodities are universally known by the merchants of both, as specie may be sent abroad with very little cost of transportation, a very slight advance in its relative value will cause it to flow in from other countries, and a very slight surplus will cause it to flow to other countries, until the common equilibrium is restored. In this, we see in what manner the universal employment of the same substances, by all nations holding intercourse with each other, will be an advantage to all; inasmuch as it will prevent any great fluctuation in their relative value in any particular country.

The adoption by a community or state of a kind of money which is not acceptable in other countries, necessarily excludes that people in great measure from the commerce of the world. Thus in ancient Sparta, in order to maintain the policy of isolation which ruled the state, and to restrict all foreign commerce, it was enacted that the money of the state should be of *iron* alone. This measure had the effect to repress trade, but it also made the Spartans the most venal and corrupt of all the peoples of Greece. For the free and prosperous commerce of civilized nations, it is of the highest importance that the standard of value and medium of exchange adopted by them be uniform. The circulation in a country of an irredeemable paper money, or the adoption of a standard of specie, at variance with that in use among other commercial nations, must inevitably impede the trade and impair the industry of that country.

The special adaptedness of Gold and Silver for the functions of money is due to certain qualities which are found peculiarly combined in these metals. These qualities should be specifically noticed.

1. *Gold and silver are intrinsically desirable.* Their brilliancy, their malleability, their resistance of corrosion and their permanence fit them especially for ornaments for the person, for plate and for the manifold decoration of temples, houses and equipages. Articles made of these materials or adorned by them have an intrinsic beauty which gratifies the taste of men universally. They are desired by rude and cultivated people alike. This taste, which has been uniform and enduring through the ages, is not likely ever to change or pass away. We have reason to believe that those which are fitly called *the precious metals* will always be sought after for these and other more substantial uses to which they may be applied. Their further use as money only enhances and makes more constant and steady their general desirableness.

2. *These metals are obtainable only by labor; and the amount of labor necessary to obtain them is more invariable than that which pertains to other substances.* Occasionally in California or in Australia, one may have chanced suddenly to find a nugget of pure gold, but ordinarily, gold and silver are obtained as the fruit of labor in long and patient search, washing sands, breaking rocks, reducing ores and separating the metal from other substances with which in nature it is associated or combined. The amount produced is directly and immediately dependent on the labor employed. Twice in the history of the world, viz., on the first discovery of America, and on the unfolding of the mineral treasures of California, Australia and the Rocky Mountains, there was a sudden increase of the amount of these metals in the world's market. But in both cases, this increase of the material of money was fol-

lowed very closely by an expansion of the commerce of the world which caused a corresponding increase in the demand for money, so that the equilibrium between supply and demand was but slightly disturbed.

As we have seen, the two elements of value are *desirableness, and cost measured by the labor necessary to obtain a given object.* In respect to both these elements, gold and silver are permanent and uniform beyond any other products of human labor. Hence their *value* is less fluctuating, more stable than that of anything else, and therefore they are best adapted to fulfill the functions of money.

3. *These metals concentrate within a small bulk a large amount of value.* In the use of them as the instrument of exchange, much labor of transportation is saved. They are conveniently portable. A man may easily carry in his pocket, the value of a wagon-load of wheat, or a car-load of cattle, when put into the form of gold. At the same time, their value is not too much concentrated as is the case with diamonds.

4. *These substances are capable of minute Division without loss of value.* This is a quality essential for facilitating all sorts of exchanges. A gold eagle or a silver dollar may be divided into ten equal parts and each piece will have the value of just one-tenth of the original coin ; the value of all the pieces together will be equal to the value of the one whole piece. A large diamond is worth several times its weight of small diamonds, and once broken into pieces, its original value can never be restored.

5. *These metals are of uniform Quality.* Gold and silver pure are always and everywhere the same. At the same time they may be readily alloyed that they may be rendered harder and so better adapted to use as money. But they can easily be refined and restored to their original purity without loss.

6. *These substances are of such a nature that their value*

can be easily verified. They are malleable, easily wrought into any shape, and capable of receiving and retaining a distinct impression. Their brilliant lustre, their uniform weight and their resistance to the action of acids, make it easy to distinguish them and to detect adulteration.

7. *These metals are nearly Indestructible by accident or use.* No ordinary fire consumes them. They are not decomposed by atmospheric influences. They wear away very slowly. "It has been ascertained, from data carefully obtained in the bank of England, that gold in coin loses only 4.16 per cent in one hundred years, or about one per cent in twenty-five years."

8. *These two metals are adapted to each other, for the different exchanges, large and small, which the trade of civilized countries requires.* If gold should be so minutely divided as to represent very small values, the pieces would be counted with difficulty, and easily lost. If silver alone were used for all exchanges, its great bulk, when large values were represented, would involve much inconvenience. It is a great advantage to have the two metals, to be used as money, the one for large, and the other for small values. If each has its natural sphere defined, and is held to its own peculiar function, the slight variations in their relative value, which from time to time occur, will work no serious evil.

It is because gold and silver possess these essential qualities for the functions of money, that they have been so long and so universally employed as the money of the world. We use them as an instrument of exchange, not because they bear *a certain stamp,* nor because government has made them *a legal tender,* but because we know that *they represent a given amount of value,* and that therefore we can exchange them for the same amount of value whenever we please. In the strictest sense, the only *Real money* consists of these precious metals in the form of coin stamped and issued by government authority. The various representatives and substitutes for this which are employed, are properly embraced in the broader term *currency,* and will be noticed in treating of credit.

The views given of the nature and functions of money establish certain truths which are worthy of distinct statement.

1. Since cost of production is the basis of value, *in every exchange the cost of the money employed is to be regarded as equal to the cost of the article for which it is exchanged.* If a barrel of flour in Lima is exchanged for ten dollars, the cost of producing the flour and of transporting it to Lima is equal to the cost of producing the silver and transporting it. Mr. McCulloch says, "Whatever may be the advantages attending the use of coined money, its introduction does not affect the nature of exchanges. Equivalents are still given for equivalents. The exchange of a quarter of corn for an ounce of pure unfashioned gold bullion is undeniably as much a real barter as if it had been exchanged for an ox or a barrel of beer. But supposing the metal to have been formed into a coin, that circumstance, it is plain, could have made no change in the barter. A coin is merely a piece of metal of known weight and fineness; and the commodities exchanged for it are always held to be of equal value."

2. *The general use by all nations of the same kind of money as the instrument of exchange, and the universal freedom of commerce everywhere must serve to equalize any variations in the cost or in the supply of money.* The opening of new and richer mines, or the use of improved means for extracting the metals, may cheapen money. The value of money, like that of any other commodity, is also affected in short periods by fluctuations of supply and demand. But *the commerce of the world is the great reser-*

voir, the ocean encompassing the globe, into which all contributing streams of money flow, and *its level is essentially the same everywhere,* varied only by considerable lapses of time. If there is more money in a country than is needed for its exchanges, the price of goods is raised and it is sent abroad for new purchases. If there is a scarcity of money in a country, the price of goods declines and money comes in from other lands to be exchanged for them. Thus by a law as simple and constant as that of the tides, the money-market regulates itself, provided only *trade is free and money is real* and the same everywhere.

3. *The amount of money in any one country and in all countries is very small in proportion to the whole amount of wealth and of values exchanged.* As a standard of value money may be said *to regulate* all exchanges. As a medium of transfer, *it is actually employed* in comparatively few, and performs its office *with great rapidity.* By the simple process of keeping accounts, which are occasionally balanced, a little money suffices for the exchanges of any community. By like means, in yet greater degree, are the large operations of trade between different nations, conducted without the transportation of much money. It flows from one country to another only in the process of equalization just spoken of. So far as it is employed in a particular community, the same money may be used ten times or more in a day, each time fulfilling its purpose. In general, the more freely it flows, the more rapidly it passes from hand to hand, the better for the prosperity of business.

4. *An increase of the amount of money in a country is of no advantage unless it is demanded by an increase of production and of active trade.* It must be remembered that money is only an *instrument* or a *machine* like a plough or a power-loom. It is of no advantage to a community to have a hundred ploughs when only fifty can be

used, or forty looms when twenty will do all the work. So, if one million dollars serves all the purposes of exchange in a city, to double the amount of money will bring no benefit. If it is a city isolated from the rest of the world, such an increase will merely double prices, that is, twice as much money will be used in every exchange. If its trade with other places is free, the superfluous money will float away on the tide of commerce to some point where it is needed, just as a surplus of wheat or cotton goods or any other commodity must do.

5. *The abundance or scarcity of money in a country is not of itself a trustworthy index of prosperity.* We need to look back of the fact to its cause. If money is abundant because business is stagnant and exchanges are few, it is a sign of adversity rather than of prosperity. If a scarcity of money is caused by an increase of products and great activity of trade, it indicates a prosperous condition. In countries containing rich mines of the precious metals, money or the material for money becomes a product of regular industry, and its abundance is a favorable sign. In another country money may be very scarce, because from its scanty resources or on account of the degradation of its people, little is produced which can be exported to bring money in exchange. In this case the scarcity of money is a sign of poverty.

6. *The oft-repeated maxim, "It matters not what becomes of property, so long as the money is in the country," is false and mischievous.* The great fire of 1872, in Chicago, within thirty-six hours, consumed *property* valued at about two hundred million dollars. But the vaults and safes of the banks protected the *money* of the city so that at most, a few thousand dollars would cover all that was lost in that form: Did the fact that the money was saved compensate in the least for that wasteful destruction of every other kind of wealth? Contributions from

all parts of the world provided immediate necessities for the relief of suffering. With means obtained largely by credit, the city was rapidly rebuilt. The pressure of the burden of loss was thus eased and postponed for a time. But at length by the embarrassments and failures of 1876–7, the people of that city and many in other parts of the country were made to understand that *it does matter* what becomes of the *property* of a country. Labor and capital valued at a million dollars may have been expended in setting up a great manufactory which has proved an utter failure. So much property is thereby lost. Are not those who so invested their capital and the whole community so much poorer for that useless outlay? Does the fact that the money paid out in erecting and putting up the establishment is still circulating among the people change the essential feature of a dead loss? That money was but the instrument by which so much wealth was thrown away; whatever other purposes it may serve, it cannot now bring back to the owners what they have lost. If a thief in the night had emptied your store-house with a wheel-barrow, you could not easily be convinced that it made no difference, you were no poorer, since he had left the wheelbarrow behind.

It is the complications of credit with money, hereafter to be considered, which mystify most minds on this subject and really produce a great part of the apparent variations in the value of money, in different countries and at different epochs.

The Agency of Government with respect to Money.—Men use money in exchanges, for the same reason that they use hammers for the purpose of driving nails, because they find that they thus save time and labor.

Had governments no agency at all in the matter, the precious metals, as an instrument of exchange, might have been both introduced, and universally employed; and they *would* have been so introduced and employed, as they actually *were* in the time of Abraham. Hence, as we have before remarked, these metals derive their use as money from their inherent fitness, and the desire of men so to employ them, and not from any agency of government. While, however, this is the case, and while this is always to be borne in mind, there is yet some agency, which society, or government, which is its agent, may exert, that shall increase the convenience of whatever may be used as money.

This agency has reference to two objects.

First, Whenever any substance has been found universally adapted for the purposes of exchange, it is important that it should be used by all men, unless something to the contrary be specified by particular contract. If I owe a man for a hat, and when I come to pay him, he demands payment, not in silver, but in beaver skins, I may not be able to procure them and he may hold me his debtor and deal with me accordingly. If, instead of paying him in silver, I offer him leather, and declare that I will pay him nothing else, he will be defrauded out of his due. Now, to prevent disputes without end, it is desirable that something be fixed upon, the tender of which shall discharge forever the debtor's obligation. And as this would most naturally and most justly be the substance which all men accept as money, this is most properly chosen. Hence, society or government has a right to establish the precious metals as a *Legal Tender;* that is, to enact that if a man declares that I owe him ten dollars, and I offer him ten silver dollars, if he chooses not to receive them, I am under no obligation to give myself any more trouble about it. The tender, on my part, is a full release. I am under no obligation to offer anything else; and he has no right to demand anything else. Nor is there in this any oppression. If a man wishes to be paid in something besides money, he can always specify it in the contract, and thus his object can be accomplished. The whole effect of such a law is to prevent disputes, and to enact what shall be a full and valid release from obligation, when nothing specific has been agreed upon.

Second, The utility of whatever is used as money will be greatly increased by its careful *preparation for its purpose.* This is accomplished by the process called *coining.*

It is evident that the preparation of coin for the public use could never be safely entrusted to *individuals.* The temptations to dishonesty are too great for ordinary human virtue. Such a work should be executed by those, whose interest would lead them to perform it with the greatest possible fidelity. Hence, in all civilized countries, individuals have surrendered the right of coining money to the government, to be exercised by agents appointed for that purpose. These agents should be men of science and skill, acting in such circumstances that their interest will be strongly on the side of honesty, and under such supervision that any failure of either skill or integrity can be easily detected.

In coining the precious metals to make them money, the government must have regard to the convenience of the public in three particulars, viz., the Quality of the coin, its Size and its Form.

1. *The metal of the coinage must be of uniform purity.* Were it otherwise, every piece must be tested by chemical analysis. Since money is liable to loss from wear, and since it is very difficult to bring the precious metals to a condition of absolute purity, it is found of advantage to mingle some portion of alloy with the metal as it is prepared for coining. This renders the metal harder, and makes it feasible to set the standard of purity at an exact

point. The degree of this adulteration should, however, be fixed by law, making it invariable and publicly known.

2. *The coins must be of Sizes most convenient for the purposes of exchange.* If made too large, they cannot well be carried about; if too small, they are easily lost and involve much time and trouble in counting. Hence, the advantage of using two or three different metals, gold for the higher values, silver for a lower grade, and copper for the lowest of all. The relative proportion of the pieces to each other should be adjusted so that all can be conveniently enumerated. On this account, the decimal system adopted in the United States and in France is probably preferable to any other. The size once fixed upon should remain invariable.

3. *The coins should bear such Forms that each piece shall indicate distinctly its value.* If any portion of the metal has been feloniously abstracted, the fact should appear in a change of form. For convenience in counting and piling, flat coins are preferable. To present the least surface to friction, some thickness is desirable. The surface needs to bear some variety of impression, so that if the metal is filed or worn away, it may be apparent; the same purpose is subserved by milling the edges. The effect of friction is further obviated by raising a rim on the edge of the coin. It would be of advantage also, if the amount of pure metal in every piece were stamped upon its face, so as to give assurance that the quality of the coin is unimpaired.

The true office of the government in this business of coining money is simply *to promote the convenience of the public* by verifying and giving definite form to that which is the world's chosen standard of value and medium of exchange. In principle, it is precisely the same thing which it does in establishing standard measures of length, surface, weight and capacity. Its action in the two cases differs only in this, that with respect to the other measures, it can safely leave anybody to manufacture the instruments to be used, if they will but bring them to be verified by comparison with its established standard; but in the case of money, there is a special liability to fraud and deception, which is best obviated by the government preparing, under its own authority and supervision, the instruments which are to be used in measuring values.

Since the manufacture of coins requires considerable labor with expensive machinery, and since the metal coined has additional value from the means of verification conferred upon it, which inures to the benefit of the owner, it is right that *the owner should pay for the service rendered.* It is common therefore, when a person brings bullion to the mint to be coined, for the government to require a small payment for the operation. This charge is technically called *Seignorage.* It should be no more than just sufficient to defray the expenses of the work, otherwise private individuals will be tempted to undertake the business for gain. The machinery and processes for coining under the direction of the government are now brought to such perfection, that the actual expense is very trifling. It is computed to amount to only one-fifth of one per cent for gold coins, and this is now the rate charged by the United States government.

In continual use, coin becomes worn so that its impression is effaced and its value is diminished. When thus unfitted for circulation, it is but fair that the government should make arrangements under certain limitations, *to repair the loss* at its own expense. It would not be right that the entire loss should fall on the last holder. Accordingly, by law, gold coins of the United States are receivable at the treasury, at their denominational value, when not reduced in weight, after a circulation of twenty years, as shown by the date of coinage, more than one half of one per centum.

The government must also have some authority to control the circulation, within its own territory, of *foreign coins.* Otherwise, worn and depreciated coin of other countries may come in and drive out its own superior money. Some years ago, our country was flooded with Spanish and Mexican silver coins greatly worn, which caused our own better coin to disappear. The evil was relieved by an act ordering that the foreign pieces should be received only at a discount of twenty per cent on their face value, though they had really lost only ten per cent. The old coins were immediately collected and melted up.

In the operations of international commerce hitherto, great inconvenience has been caused by *the heterogeneous character of the monetary systems of different countries,* involving troublesome fractional operations in reducing the coinage of one country to that of another. This matter has attracted much attention of late, and earnest attempts have been made to bring the civilized nations of the world to adopt a system of *correlated international coinage.* This would require only that each nation should adjust its coinage to the same gold standard, determine the units of its system so that they shall all possess simple numerical relations, as to weight, with the gramme, the metric unit of weight, and give a decimal character to the standard of purity, that is, to make the coins of nine parts pure metal, (gold or silver as the case may be) and one part alloy. A slight change in the systems of the leading commercial nations would secure this uniformity, and we trust at no distant day, it will be accomplished. If with this change, there could also be more fully adopted a uniform system of weights and measures, the exchanges of the world would be greatly facilitated.

The legitimate agency of government with respect to money extends not much beyond the action we have considered. *Laws forbidding the exportation or importation* *of money are unjust and mischievous.* Money, like any other commodity, if let alone, will regulate itself. It will be sent abroad or brought into a country, just as will be most for the common advantage. Such restrictions interfere with individual property-rights. A man has the same right over the money he may possess, that he has over his cotton or wheat, or any thing else, that is, a right to exchange either *with any one* or *for anything* on which the parties may agree, as may seem for his advantage.

There may be occasion for a government, at times, *to alter the value of its coinage.* But this ought never to be done arbitrarily, nor for the advantage of the government itself, nor of any class or party, but solely to subserve the public convenience or advantage. Such changes necessarily interfere with private contracts and in the relation of creditors or debtors, wrong one side or the other. These interests, therefore, should be carefully protected in any acts changing the value of money.

For the same reason, it is obvious that nothing but extreme necessity involving the very existence of the nation can warrant a government in *making anything but gold and silver a legal tender.* In such an exceptional case, when the exigency is passed, sound policy demands that the general finances of the country be restored to the basis of real money, with as little delay and with as little shock as possible.

The question of a Double Standard.—We have seen that the use of both gold and silver as money, for convenience in the adjustment of exchanges where different degrees of value are concerned, is highly advantageous, almost indispensable. Should the standard of value be defined in terms of each metal and both be made legal tender to an unlimited extent? This is a distinct question, and one of no little importance.

As these pages are passing through the press, our country is much agitated about a proposed law for the "*remonetization of silver,* designed to withdraw existing restrictions on the coinage of that metal and to make silver coin an unlimited legal tender. It will not be pertinent here, to discuss this as a political measure, complicated with past acts of Congress on the subject, and with the difficult problem of a return to specie payments after large issues of a paper currency which the law has made a legal tender for several years. Two or three phases of the matter may, however, be properly noticed in the light of principles already defined.

However it may be accounted for, the fact is that the value of our smaller silver coins now stands at about eight per cent below the standard of gold. Even the trade-dollar, so much called for, though it contains a larger proportion of pure metal, is still four per cent inferior to gold. Silver has been *legally* for four years, *practically* for forty years a tender only for small amounts. In these circumstances, as its first effect, the proposed measure would simply warrant the payment of the debts of the government, and of all private debts with a *depreciated money.* So far, it impairs existing contracts and works a wrong of the same kind with that involved in the action of kings of the middle ages when they debased the coin of the realm. Seen in its true light, the measure involves this. It says to every debtor, as did the defaulting steward of Christ's parable, "Sit down quickly and take thy bill and write ninety-two for every hundred." In this aspect, the measure is unjust and conflicts with the fundamental principles of our science. Is the necessity of the case so extreme as to justify it?

Besides, it is a law as fixed as the law of gravitation, that when two kinds of money of different valuation are thrown together without limitation, into the trade of a country, the more valuable, as the heavier, will sink and disappear, leaving only the lighter to float on the surface of current exchange. Thus the requisition that silver coin shall pass, under no restriction, at the same nominal rate with gold coin, which has a superior value, must inevitably *drive out the better money and leave the country with only silver money.* Silver must flow in from everywhere to displace the gold we now have. For in most of the civilized nations with which our people have commerce, silver is by law, or by established usage which has the force of law, employed only as a subsidiary coinage for exchanges of limited value. The effect of the measure would thus be to bring into universal use in our country, a money which is not generally acceptable to other nations, and so to throw our industry out of relation to the commerce of the world, except at a disadvantage.

Furthermore, we have seen that it is of the highest importance that the standard of value be as *invariable* as possible. Gold and silver are both liable to some fluctuations as the cost of their production varies, but experience has shown that of the two, gold is the more stable and hence preferable for the standard. The attempt to unite the two in a double standard involves the special difficulty of determining and maintaining *the relative values* of the two metals. But the ratio of these two values is very inconstant. However carefully adjusted at one time, it is impossible to keep it fixed. As soon as any material difference appears, the cheaper will be chosen for the payment of obligations, and the dearer will be transferred to other countries or melted up because it has a higher value as bullion than as coin. Hence the necessity of frequent interferences of the government with the money of a country, to the disturbance of its true functions.

These fluctuations might be relieved in part, if *all countries were to adopt the double standard.* Then money of either kind, being acceptable everywhere, whichever was in excess in one country, might find its way to some other country where there might be a deficiency. Even then, however, there would be a necessity, from time to time, for some kind of a congress of nations to determine the relative value of these metals. For one country by itself to adopt the double standard without qualifications, must inevitably work to its disadvantage, by embarrassing the movements of exchange with other parts of the world.

The employment of silver *as a subsidiary coin*, making it a legal tender in exchanges within defined limits of value, involves no such evils and secures in the highest degree, the advantages of the two metals, as *each becomes the complement of the other, each fulfilling its function as money, in a sphere to which the other is not adapted.*

CHAPTER XXI.

CREDIT AS AN INSTRUMENT OF EXCHANGE.

The Nature of Credit.—In its generic sense, *Credit is Reliance on the truthfulness and integrity of one's fellow-men.* Some exercise of it is essential to the very existence of society. With the advance of civilization it works naturally and necessarily into all the mutual relations of mankind, and especially into their business intercourse. According to its extent and the soundness of its basis, it becomes a sign of the social condition and character of a people. It marks the chief distinction between civilized and savage life.

The simplest services cannot be interchanged without credit. If you hire a laborer to do a day's work, you must trust him as one able and faithful to do what you wish, and he must trust you for his pay until the end of the day. When you take your horse to the blacksmith to be shod, you commit your property to his charge, confident that he will not abuse the animal, and he lays out his labor and skill, assured that you will not drive off with the benefit of his work without making due compensation. The merchant puts his goods into your hands, believing that you will hand him in return, the money which is their price. So in every kind of transaction between man and man, there is an interval, it may be a minute, it may be a year, it may be a term of years, during which *trust* on one or both sides must be exercised.

As a technical term of Political Economy, *Credit is*

Trust in the promise of an equivalent to be rendered at a future time for values immediately transferred. In the machinery of Exchange, credit is thus a *substitute* for money, with which it is more or less combined in all operations, exerting a mighty power for good or evil. It is the chief cause of the *fluctuations* of trade. As an instrument of exchange, it is indispensable and yet it must be regarded as a *dangerous* instrument, needing to be used always with some precaution.

In further treating the subject, we shall present, first the *Forms* of credit, second the useful *Functions* of credit, and third, the mischievous *Abuses* of credit. The succeeding chapter will be occupied with Banks as the *Agents* of credit.

The leading Forms in which credit enters into the operations of Exchange are

1. *Book-Accounts.* A seller extends credit to a buyer for such time as they may agree that the account shall run. The butcher wants the baker's bread and the baker wants the butcher's meat. Each makes his morning purchase of the other to be charged in account. On the day of settlement, the balance is struck and the deficiency, on whichever side it may be, is paid in money, or carried to new account. So a farmer may anticipate the returns of his harvest by a running account at the store. In this case, the *promise* is implied in the direction to make each charge.

2 *Loans.* A lender gives credit to the borrower on the strength of his *formal promise,* generally written, to pay at a definite time in the future with interest, the money now advanced. Thus a farmer may have a surplus of products not needed for his own use. These he turns into money and lends it to the blacksmith for the purchase of tools and materials to set him up in business, trusting

in his ability to refund him from the products of his work. The promise may be sustained by security pledged, as a chattel-mortgage or a mortgage on real estate.

3. *Mercantile Paper.* Goods are transferred from a manufacturer or an importer to a jobber, or from a jobber to a retailer, to be paid for after thirty, sixty or ninety days, out of the avails of a second sale. In this case, the promise takes the form of a negotiable note, and the extent of the credit will be limited by the character and ability of the buyer. This paper may be and often is passed to other hands, according to the exigencies of the holder, and thus, to a limited extent, it floats in the community as a marketable article, subject to the regular dealings of brokers and money-lenders.

4. *Bank-deposits.* The depositor gives his banker credit for money put into his hands, to be paid on his order, and accepts a certificate or an entry in his bank-book, as the promise, the voucher for the transaction. The orders by which these deposits are drawn out are called checks, by means of which, credit in this form, may float about with a limited circulation, at home; and as the basis of bills of exchange, hereafter to be more fully explained, credit may thus reach round the globe, performing a very important part in the exchanges of individuals and of nations.

5. *Stocks.* A number of individuals may enter into association, combining their capital for banking, manufacturing, building a railway or any other business. Each gives credit to the association for the capital he puts in and accepts *a certificate of stock* as the promise or voucher of the association. His trust is in the honesty and skill of the officers and directors to make the business safe and profitable. These stock-certificates, being transferable, may pass into other hands or be thrown upon the market, at the will of the holder. Thus credit may become itself

an article of merchandise with a current price, determined by the public estimate of its safety, or expectation of its profitableness, which will fluctuate under the influence of various causes, natural and artificial.

6. *Bonds* issued by corporations, cities, states and nations. Whoever receives and holds these for money paid gives credit to the body corporate or politic, whose promise is embodied in the bond. Their value is estimated by the degree in which they command the public confidence, and they bear a price accordingly. These, like stocks, are made articles of merchandise in a regular and legitimate trade. They are sought by many for the investment of money, because they combine the advantages of known security, long time and ease of transfer. When however, for any reason, they become uncertain or unstable, they are made the sport of wild and reckless *speculation.* In such cases, credit furnishes the instruments for stock-gamblers to play with.

7. *Promissory Notes* issued by banks or governments, and designed to pass from hand to hand as *Currency.* The public, receiving and using these, gives credit to the banks or governments, and confidence rises or falls with all causes which affect the ability or the stability of the promissor. We include here, all the forms of *paper money* —the purely *Credit* currency, like our greenbacks, where the promise rests on the simple wording of the paper—*Mixed* currency, like that of the old state-banks and of our present national bank notes, where the promise is sustained by a quota, great or small, of bullion or by government bonds, held for its fulfillment—and *Mercantile* currency, as it is sometimes called, like the notes of the bank of Hamburg, where is kept in the vault of the bank a gold dollar for every paper-promise of a dollar in circulation. These all involve credit, they differ only as respects the ground for trust, in actual resources for the

fulfillment of the promise. In this form, credit flies everywhere and attaches itself to every transaction of business; safe and helpful, or liable, like a bubble, to sudden inflations and collapses, according as it is restricted and regulated, or left to the freaks and fancies of men's fluctuating hopes and impulses.

Under one or other of these heads, all the forms of credit in common use may be classed. The concise statement brings out both their distinctive and their common features.

In all cases, the *true basis* of credit is *real wealth*, existing or prospective, which is or is expected to be at the command of the party trusted. Its *essence* is confidence in the *ability*, *truthfulness* and *integrity* of the party trusted. When either of these is weakened, credit wavers. Just in proportion as credit is pushed out by the sanguine hopes and expectations of men, beyond the solid ground of existing values, it tends to become illusive and dangerous.

The useful Functions of Credit.—As we take up this topic, a few words are needed to clear away some confused and erroneous notions which are quite commonly entertained.

Credit is not Capital. It is only a means of transferring capital from one person who cannot use it to another who can. If a man has borrowed ten thousand dollars to set up a flouring mill, the property in the mill is so far not his own, nor are the proceeds of running the mill all his own. The interest to be paid on this borrowed capital is so much added to the necessary outlays of his business. His returns must be by so much reduced.

Credit does not of itself create Capital. It cannot by any magical power, make something out of nothing. Wealth does not grow by the mere act of passing from hand to hand. Its increase comes only from its union with labor. The transfer may favor such a union; it can do no more.

The same capital cannot be used both by the owner and by him to whom it is lent, at the same time. It is plain that a farmer who has lent his plough to a neighbor, cannot, at the same time use his plough on his own field. No more can B use for his own purposes the thousand dollars which he lent to A. He may use A's note as security in borrowing the same amount of C, and C may use it again to borrow of D, and so the series may be extended to Z. But there is only one thousand dollars of capital to be recognized, and the whole series of transactions is settled by a single act, when A pays that amount to Z, the last holder of his note.

But indirectly, credit when held to its legitimate functions, does render important services to all departments of industry.

1. *Credit brings wealth into the form of Capital and makes it available for the increase of wealth.* Many persons possessing wealth are in circumstances which forbid their employing it themselves in a way to make it productive. Widows, minors, aged persons, professional men otherwise occupied and unfamiliar with trade and manufactures, are often the owners of property from which they need an income, but they cannot by their own labor, make it productive. In every community, there are many engaged in various forms of active labor, who can, year by year, lay by little savings, but they cannot bring these savings at once into union with their own labor. If there were no such thing as credit, or if from want of mutual confidence among men, it were scantily practised, all this wealth in the aggregate amounting to millions of value, must be idle, or be wasted in unskillful and unsuccessful attempts to make it yield a profit. The various forms of credit furnish facilities for transferring whatever surplus wealth any one may have to

the hands of those producers or traders, who, in active business, have the means of employing it to best advantage. Thus while credit is not itself capital and cannot create capital, it does greatly increase the *sum of wealth available as capital* for profitable uses, much to the benefit of both borrower and lender.

2. *Credit gives efficiency to the industrial talent of a country.* Many a person who has strength and skill, and all needed qualifications for business, has no capital of his own. Without credit, his peculiar, it may be eminent capacities must be partially or wholly unemployed. By means of credit, however, he is enabled to obtain control of capital, on which his energies may be expended so as to bring in large returns both for himself and for whoever trusts property to his hands. In our country, those who have proved most effective in increasing wealth have been almost invariably, persons who have begun business with only their own energies and a character to inspire the confidence of others. Patient, effective industry needs continually to be sustained by the judicious exercise of credit. The best encouragement for a young man to make the most of himself is the assurance that his energy and fidelity will be a ground of confidence which will secure to him all needed means for the employment of his capacities. By the general increase of both enterprise and wealth, the whole community derives a benefit from such exercise of credit.

Credit is then, in the light of these two views, indispensable both to the drawing out of the entire *capital* of a country, and also to the most effective development and exercise of the *industrial talent* of a country. These we have seen to be the two elements of production by which wealth is increased. Thus the free exercise of credit on a sound and stable basis, touches the very springs of industrial enterprise.

3. *Credit quickens exchanges.* The most important

functions of credit pertain to the sphere of Exchange. In that sphere, first in order comes the office named. Production must generally be more or less in advance of the demand for commodities. The produce of the farmer stored in his granary, and the products of the manufacturer waiting for purchasers, are so much capital lying idle. It will be of advantage to the producer to make this portion of his capital available at once. By selling his products for the note of a responsible buyer, payable at the end of three months, he is able to do this. For, this note in the form of what we have called "Mercantile Paper," can be used immediately as the basis of a loan and so becomes as serviceable as if the goods had been sold for money. The first sale may be to a middle-man or a commission merchant, and so it stands at the beginning of a series of exchanges through which the goods must pass before they reach the consumer. Each sale may be facilitated in the same way by the use of credit, and thus the articles are brought within reach of the public, just when and where they are needed, and the capital represented by their value, is turned over by each party without delay. It is, as we have seen, only one capital, but credit keeps it moving along the whole line of exchanges in repeated service. Without this facility, there must be temporary suspensions of industry, and long pauses in exchange. This function of credit has very much to do with keeping the market of a community supplied all the time with things needed.

4. *Credit serves directly as an Instrument of Exchange.* The simplest phase of this function in *book-accounts* has been already noticed. A buys of B on credit, and B buys of A on credit. At the year's end, the books on either side are balanced, by the payment of the difference or by simply carrying it over to begin the account current for the next year.

The same thing is accomplished on a larger scale by credit in the form of *Bank-deposits.* Suppose a community in which the leading business men make their deposits in a single bank. Then, if A makes a purchase of B worth a hundred dollars, he will make his payment by a check which B will send to the bank, and the amount will be added to his deposit account. The check simply withdraws a hundred dollars from A's to be added to B's account on the books of the bank. B, on the same day, and in the same way, may make a payment of the same amount to C and C to D and D again to A. Four payments have been made by four checks passed into the bank. On each of four accounts, two corresponding entries have been made; and yet at the close of the day, the four accounts stand just as they did at the beginning. For these transactions, not a dollar has been drawn out of the bank or even counted in it. Credit has been the sole instrument of exchange employed. All the business-men in the community are using it in a greater or less degree, to fulfill the same office.

In a large commercial city like New York, through a hundred or more banks and exchange-brokers, credit is doing the same thing every day, for fifty thousand people. There, since each bank receives more or less checks on other banks, one additional agency is needed to adjust accounts between the banks themselves. This is provided for in *the Clearing House,* which is only a kind of central bank of deposits for the banks. Each bank keeps a deposit of money at the Clearing House. At a certain hour every day, messengers present, at their respective desks, the checks, drafts and demands received by the several banks, the day previous, carefully sorted. By a systematic arrangement, the exchange of checks is all effected in ten minutes. Thirty-five minutes more are allowed for the clerks inside to make their entries, report and prove their work. A little further time is given to the detection and correction of errors, and ordinarily the entire business of the morning is accomplished in one hour. If the deposit of any bank is found to be overdrawn, notice is given at once and the deficiency must be supplied during the banking-hours of that day. No transfer of money is required except to make up these deficiencies. Transactions of exchange amounting in one day to more than two hundred million dollars have thus been settled in the space of an hour, saving much of both labor and danger, involved in the transfer of money from bank to bank.

Credit fulfills a like office in adjusting exchanges between *two distant cities.* It is to be borne in mind that the sales and purchases of every community, as well as of every individual must be substantially equal. A man can buy only as much as he can pay for, and as much as he can pay for, he will generally buy, and what he produces must pay for what he buys. So it is between two cities, Chicago and New York, for instance. The agricultural products sent from Chicago must pay for the goods brought from New York. The chief instrument of this exchange is credit. Thus produce-dealer A in Chicago, ships to B, his consignee in New York, ten car-loads of wheat whose market-price, at the sea-board, is five thousand dollars. When the wheat is delivered, A makes a draft on B for the five thousand dollars and deposits it to his own credit in his bank in Chicago. The bank forwards the draft immediately to the bank in New York with which it keeps open account, and the same day sells to C, a dry-goods merchant in Chicago, its draft for five thousand dollars to pay for goods received from an importer in New York. Credit in the form of bank-deposits has thus effected an exchange between these distant cities, of wheat for dry-goods, with only the labor of writing a letter or two, and making a few ledger-entries. We have taken a very simple transaction out of a thousand exchanges more or less complicated, yet all accomplished by the same means, every day. If the exchanges between two places are equal, the whole business between them may be thus adjusted without the transfer of any money.

If, however, *the balance of trade* between the two places is against Chicago, that is, if the value of the goods which Chicago buys of New York, is greater than that of the produce which New York buys of Chicago, the difference must be made up in some other way. It might be by sending money. But perhaps it will be more advantageous to bring accounts with another city into the negotiations. Thus, if the balance of trade between New York and New Orleans is in favor of New Orleans and the balance of trade between Chicago and New Orleans is in favor of Chicago, credit may still fulfill its function through deposit accounts in New Orleans. The Chicago merchants may pay for their goods from New York in part, by drafts of the Chicago banks on the New Orleans banks, based on wheat or other products sent thither. So by the instrumentality of credit, in a triple exchange, the products of the western prairies may be made to pay for the goods brought from New York.

The case is essentially the same between *the chief trading cities all over the world.* The foreign trade of Boston is mainly an *account current* with all the cities of the world with which she has commerce. Charges on one side are set off by charges on the other, and a very small amount of money adjusts the final balances. The value of the tea which Boston imports from China exceeds that of the merchandise she sends to that country. But she sends to the British West Indies, provisions whose value as much exceeds that of the goods she imports from those islands. The West Indies may settle their debt to Boston by bills of exchange on London, and these in turn will pay Boston's debt to China. In reality, the flour sent from Boston pays for the sugar sent from Jamaica to Liverpool, and the goods sent from Liverpool to China pay for the tea sent from China to Boston, and when the circle is complete, the accounts all around are settled. Credit in the form of bills of exchange based on bank-deposits is the convenient instrument through which all this is effected. This manifest advantage to all concerned is greater just in proportion as communication and trade between all parts of the world are made more free.

5. *Credit, to a limited extent, may be safely put into the form of currency, and become an actual substitute for money.* The whole subject of currency will be more fully presented in another connection. Here, we only state this as one of the possible useful functions of credit. It is a rule of sound economy to use always the cheapest tools which will serve well the purpose contemplated. If a paper currency, in the form of promissory notes of banks, to an amount equal to double the specie which they hold, will effect exchanges well and safely, the real value of half the gold and silver fixed in money may be devoted to other purposes. So far the instrument of exchange is cheapened and there is an advantage in using credit for a portion of the currency. We recognize the fact and yet the statement must be qualified by a caveat. This use of credit runs always close upon the line of danger, and needs more careful restrictions than can ordinarily be imposed or maintained.

It is to be observed with reference to all these functions of credit, that *a basis of sound money is indispensable.* The value of every thing in whatever way it may be exchanged must be estimated by a standard universally recognized. We have seen that nothing but *real money* made of gold and silver can furnish the universal standard of value required. Real money is the ballast of the ship of trade. Credit furnishes the sails. Any ballast that easily shifts in a storm is sure to bring danger to the ship. Hence, the more fully credit is employed as an instrument of exchange, the greater the necessity that money, the standard of value, be as invariable as possible. Moreover, in all the transactions of credit to which we have referred, money as *a medium of exchange* mingles more or less. It must be good money, else the whole system of credit wavers with uncertainty. The credit which circles the world and binds all civilized nations together by the common interests and mutual service of universal commerce, must be sustained by the all pervading presence of money whose value is uniform and stable. Quality in this matter is of more consequence even than quantity. The nation that robs its money of these qualities of stability and uniformity with that of the rest of the world, rules itself out of free and equal commercial relations with other nations.

The Mischievous Abuses of Credit.—We must recognize credit as an indispensable instrument of exchange. But, like every other good thing, it may be perverted and abused so as to be productive of vast evil. The illusory nature of credit as it springs out of men's hopes and builds on prospective rather than real wealth, keeps an element of danger always in close connection with its legitimate use. It is important therefore, that the abuses as well as the uses of this instrument be distinctly apprehended.

1. *Credit is abused when too freely granted.* Poor human nature is weak and false. Not every fair promise is to be trusted. Some proof of *character* may fitly be asked of those who solicit our confidence. The real or probable *ability* of the party trusted, to return at a future day, an equivalent for values immediately transferred must

also be remembered. But some in their eagerness to trade and some through lack of judgment or nerve to make the discrimination, set aside these rules of prudence. Hence the ledger of the retail merchant shows many an account never settled except by an entry on the debtor side of the profit and loss account. Into every little western city, a stranger comes occasionally with *a stock of goods bought on credit* in New York which are rapidly sold off at very low prices, and then the stranger disappears just as his notes to the jobber in the commercial emporium fall due. Men wonder how such an adventurer obtained credit. Again and again have bankers occasion to mourn over their too easy allowance of *over drafts* to men who turn out insolvent. Besides the immediate losses involved, such proceedings seriously mar the course of regular business; the honest merchant is robbed of his trade by knavish adventurers and the community is demoralized; and many fear to give credit to those who really deserve it.

2. *Credit is abused by the wild speculation of borrowers.* One may do what he will with *his own*, but when doing business with *another's capital*, he is bound to avoid great risks. Yet too often we see the borrowed capital recklessly thrown out upon uncertain ventures, in utter disregard of the creditor's claims. Thus, even the capital of banks, not infrequently, becomes involved in the gambling operations of the stock-exchange.

3. *Credit is abused by the extravagant living of debtors.* A young merchant who has stocked his store with goods principally bought on credit, has need to husband his gains with strictest care in anticipation of the pay-day soon to come. Instead of this, one so situated sometimes adopts a lavish style of living, as though his fortune were already made when his store is opened and his trade begins. It is said that of those who enter the mercantile profession, ninety-nine in every hundred fail. The major-

ity of these failures are caused by *rash ventures and extravagant expenses.*

4. *Credit is abused by confidence operations.* Under this head we include schemes of speculation which have only credit for their basis, whether organized with the intention of swindling a credulous public, or projected under a temporary illusion by which all concerned are misled. In London, a few years ago, with great parade of advertisements, prospectuses and posters, the "Coöperative Credit Bank" was opened to receive deposits. Eighteen per cent per annum payable monthly was the enticing rate of interest offered. Some persons of eminence were named as trustees. To matter-of-fact inquirers, the single shrewd manager said that the way he had of handling the money in connection with "the Gilbert & Chaudiere gold fields" enabled him to realize so large a percentage. All sorts of fish came into the net. A Church of England rector put in eleven thousand dollars; a ship-chandler deposited five hundred that it might be in a safe place; a hard-working man with a wife and five children sent the bank one hundred and fifty dollars, being fifteen years' saving out of his scanty pay of five dollars a week, and so on. During the two years of the bank's existence, the balance-sheets were of the most flattering character and their correctness was certified by a firm of respectable accountants who took the manager's word for the genuineness of bogus accounts. When the bubble burst, instead of two hundred thousand dollars which ought to have been on deposit, the receiver of the bank found the sum of seventy-five cents, a sample of gold dust and a quantity of mining shares.

The wild speculations in western lands so rife in our country in 1836, furnish examples of the other kind of operations. Hundreds of ministers and other good people were easily drawn to invest their savings in a scheme projected by an eminent American divine, for endowing a college in Missouri by the purchase and sale of western lands. It was confidently expected that the money advanced would prove a profitable investment for each of the contributors, and at the same time provide a rich endowment for the college. Without deception or fraud, the scheme failed ; the money paid in was all lost and further pledges unfulfilled involved some in expensive suits at law. The sufferers waked from their fondly cherished dreams, wondered at their own delusion and learned how treacherous a thing is credit abused.

5. *Credit is abused by the over-estimate of assets,* sometimes for purposes of fraud, sometimes through simple self-deception, every man desiring to see the bright rather than the dark side of his business prospects. A Register in Bankruptcy recently prepared a list of over a thousand assignments made within two years. It exhibits enormous discrepancies between the nominal values presented and the values realized, one estimate of $300,000, yielding but $12,000, another of $800,000, shrinking to $24,000. This difference is explained in part, by the natural effect of sudden and forced settlements in a time of general depression, which always causes a shrinkage of assets ; but evidently a larger part is due to fraud or delusion in the estimates. The list furnishes also significant illustrations of the looseness with which credit is granted on the most slender basis.

6. *Credit is abused by the betrayal of trusts.* This item in the category needs only to be mentioned. It is sadly illustrated by recent failures of Savings Banks and Insurance companies, and the sudden collapse of fairest reputations. Presidents perjure themselves, swearing to false statements ; notes of stockholders are reckoned as part of cash capital ; collateral securities held in pledge are used as the basis of new loans ; and one whose character was never suspected, borrows money at will on stock-cer-

tificates raised by fraudulent changes of figures, to pass for tenfold their true value.

7. *The most sweeping and mischievous abuse of credit appears* in the *excessive issue of Credit Currency.* Of this we shall speak more fully hereafter. We do but name it in this connection as a most subtle and dangerous disturber of all the processes of exchange.

Some of the *mischiefs* caused by these abuses of credit must be briefly noticed.

a. From this cause proceed *ruinous fluctuations of prices.* Mr. Mill says, "*The amount of purchasing power which a person can exercise is composed of all the money in his possession or due to him, and of all his credit,*" and again, "In a state of commerce in which much credit is habitually given, general prices at any moment depend much more upon the state of credit than upon the quantity of money." In the ordinary course of business, prices are regulated by the simple ratio of demand to supply. Suppose now, a far-seeing merchant anticipates an unusual demand for certain commodities. Desiring to secure to himself as large a profit as possible from the consequent rise of price, he begins to purchase largely beforehand. He invests first his ready money, then all he can collect that is due to him, and at last pushes his credit to the utmost. This creates an uncommon demand at once. The market feels it and prices begin to rise. Others begin to have large expectations and follow the example. Thus a general demand is created which sends up prices rapidly, and the thing expected seems to be realized. The movement is not confined to certain articles, for the spirit of speculation is contagious. Trade becomes active in all departments, and all, desirous to get a share of the golden harvest, push out their whole purchasing power to its extreme limit. Prices rise beyond all reasonable grounds and still the illusion is cherished. But at last the spell is broken. Then they who were so eager to buy are anxious only to sell. In the rush of goods into the market, prices go down faster than they went up, and the bubble of speculation bursts, and with it, in the case of not a few, money, credit, all are gone. Something like this might happen, if purchases were made with ready money, but in that case, there is a fixed limit to the fund available for purchases. But by an extension of credit, men draw upon an ideal fund which is unlimited. From such fluctuations even the most prudent must suffer to some extent. *The abuse of credit is the chief originating cause of commercial crises, panics and revulsions.*

b. The losses which ensue from the abuses of credit enhance the risks of business, and for those risks the community must pay. To make good his bad debts, the retail merchant must get a larger profit out of his paying customers. In speculations carried on by credit, the apparent gain of one involves another's loss, and the aggregate loss of the community surpasses all the gains made.

c. These abuses of credit tend to turn all trade into a game of chance. Here and there a splendid prize is won. It dazzles the eyes of men. They turn from the patient toil and prudent thrift, which are the conditions of a slow but sure success, hoping by some bold venture to jump at once into a fortune. The general usage makes it difficult for those who would, to conduct business on other principles.

d. Through familiarity with failures and frauds, the moral sense is deadened with respect to a debtor's obligations. By the abuse of credit, the standard of honesty is lowered. Public sentiment becomes tolerant of delinquencies, evasions, downright defalcations. One who is known to have enriched himself by repeated failures, hardly loses his standing in society. Hence, a scrupulous conscience with respect to a promise to pay, is pitied rather than praised. It is deemed of little importance even to a reputable Christian profession; for a man versed in the ways of the world, it is a troublesome appendage. Why then should one restrict his indulgences in order to pay his debts and maintain his integrity?

e. The abuse of credit tends to relax the bands of law for the enforcement of contracts. In consequence of this abuse, the debtor class is multiplied, many without special fault of their own are borne on by the general tide, till their credit is extended quite beyond their ability to pay; delinquency is regarded as more a misfortune than a fault, and so strong are sympathies for so-called unfortunate debtors that the collection of debts by legal process becomes difficult, almost impossible. The same cause leads to mischievous legislation which impairs the force of mortgages and other securities, and by granting large *exemptions*, furnishes the means of gross evasions and a temptation to fraud.

The remedy for these manifold evils must be found chiefly in a change of public sentiment and common practice. While we are writing, it comes as the lesson of the hour, emphasized by the universal depression of business and consequent extreme distress in many quarters, that the usages of trade must be changed so as *to lay checks upon the unlimited extension of credit* in the case of individuals, of corporations, of cities, of states. It is of far more consequence to healthful industry and trade that Americans return to *the wisdom and prudence of "the fathers,"* than that the much talked of *"dollar of the fathers"* be restored. Commercial credit, like woman's chastity, needs to be sacredly guarded. Its brightness and worth are marred by one blot of dishonor. The fault may be condoned, but confidence is impaired; the wound may be healed, but the scar remains. The maxim of caution put into crude verse and current in New England, a hundred years ago, is good for all men, for all countries, for all times :

> Ever thy *Credit* keep, 'tis quickly gone,
> Being got by many actions, lost by *one*.

CHAPTER XXII.

BANKS AND CURRENCY.

THE word *Bank* is of Italian origin. In the infancy of European commerce, the Jews in Italy were wont to assemble in the market-places of the principal towns, seated on benches, ready to lend money; hence the term *bank* from *banco*, a bench. When any of these money-lenders failed, his bench was broken, and so we have the word *bankrupt*.

Banks are Agents of Credit.—We have already seen how extensive and important are the functions of credit in the exchanges of the world. Its complicated operations require special attention and management. The economical principle of division of labor demands that some persons should make it their business to develop and direct this part of the machinery of exchange. Banks are institutions devised for *systematizing credit*, and bankers are or should be well versed in the operations of credit.

Three distinct Offices of Banks are to be recognized.

1. *The collection and custody of Money-deposits* to be the basis of credit in trade. If all the exchanges of a community were to be effected by money alone, every business-man must have in his own keeping a considerable amount of money. To keep this secure from robbery and loss would involve no little pains and expense. Much

labor would also be required to count the specie paid and received, and the cost of doing business would thus be increased. Suppose that, instead of every man's doing all this for himself, the business-men agree that one person shall procure a safe repository for all the specie in the neighborhood, and become responsible for its safe-keeping and transfer, as ordered. This would provide a bank and a banker for the community. Then as each deposits what he receives and draws for what he pays, credit is made to effect exchanges in the manner heretofore described, and the money lies for the most part secure in the vaults of the banks. From this simple nucleus, the system may be extended so as to combine a number of banks in a large city, the banks of cities in different parts of a country and the banks of different countries. At the same time such an institution would render important service in gathering up a great deal of capital which would otherwise be scattered and useless in the hands of persons unable to employ it, and making it available for the office next to be named.

2. *The second office of banks is to loan and discount both money and credit.* We have seen that for the increase of wealth, labor and capital must be combined. But often, one man has the capital and another the capacity to labor. It is the office of the bank to bring the two elements together in the most expeditious and convenient way. He who has the capital, may put it into the bank to be loaned for him. He who needs the capital can go directly to the bank and borrow. The banker, devoting himself to this occupation of loaning, becomes expert in such negotiations, keeps himself informed as to the character and responsibility of borrowers and understands all the legal forms necessary to a valid contract.

The terms *loan* and *discount* mean essentially the same thing, but indicate two distinct modes of lending adopted by different classes of banks. *Savings-banks* receive on deposit the small savings of great numbers of people of limited means, make loans generally on long time, secured by real-estate or other ample sureties, and collect the interest semi-annually, as it accrues. *Commercial-banks* gather funds of the wealthy as their capital and the temporary deposits of men in active business, and make their loans for short time, sixty or ninety days, on personal security, taking interest in advance, as a *discount* or deduction from the principal sum borrowed. Often also, the amount thus borrowed is simply credited to the account of the borrower, to be drawn on as other deposits are by checks, without the withdrawal of any money at all. It becomes thus, in whole or in part, a loan of *credit* rather than money.

3. *The third office of banks is to issue promissory notes for general circulation as substitutes for money.* This creates a paper *currency.* In the simplest method of doing this, the bank loans not the specie which it holds, but its own notes payable in specie, receiving in return the notes of individuals, guaranteed by endorsers, for the amount loaned, to be paid at a future day. From this, a two-fold advantage is derived. In the first place, these notes become a medium of exchange more *convenient* than specie, because lighter and more easily and safely carried about. If the amount of notes issued is just equal to the amount of specie in the vaults, the holders would always have a double security, viz., the specie in the bank and the obligations of those to whom the notes were loaned. The law often makes individual stockholders also liable for an additional amount equal to that of their stock. Paper in the form of checks of individuals on a bank of deposit, might be made to circulate to some extent as a substitute for money, but it could be only as each man's character and standing were known. The bank is a public

institution in which all have confidence and hence its notes are readily accepted by all.

The other advantage is that *paper*, a substance much *cheaper* than gold and silver, may, within certain limits, fulfill all the functions of an instrument of exchange, and permit a portion of the precious metals to be applied to other uses. There is economy in thus cheapening the instruments of trade, provided the restrictions are such that their fitness for the required service is not impaired. The bank-notes may safely be issued in excess of the specie held in reserve; for they can never all be presented at once, and the notes of borrowers falling due day by day, may be relied on to provide in part for the redemption of the notes as they may be presented. This view is sound provided the safeguard of fixed limits to the amount of notes thrown into circulation is rigidly maintained.

Banks, in the fulfillment of these offices, confer another incidental benefit, especially in a new country. As public corporations of known character, they offer inducements for the introduction of *foreign capital.* In a young and growing country, capital is scarce and at the same time, more productive than in older countries. The higher rate of interest offered is a strong attraction to capital from abroad, and banks properly established provide a safe channel through which it may come in.

Through these offices, banks have also rendered very important services to *the finances of sovereigns and states,* steadying and strengthening the bands of government and furnishing efficient aid in the emergencies of war and of great national enterprises.

A few facts drawn from the *history of banks* will further illustrate their nature and operations.

The *Bank of Venice,* founded A. D. 1171, was the earliest banking institution in Europe. It was based upon a forced loan of the Republic. The reigning duke, in order to raise means for carrying on a crusade, obliged a number of the most opulent citizens to advance funds to a "*Chamber of Loans*" to which the contributors were made creditors, receiving a yearly interest of four per cent. The funds so deposited could not be withdrawn, but were transferable on the books, at the pleasure of the owner. It provided also for the safe custody and transfer of special deposits. The bank credits, in form like modern certificates of deposit, were at a premium for purposes of trade. This bank of Venice served well the exigencies of the state, and was of great advantage to its wide-spread commerce. Its operations, thus confined to the regulation of credit, as based on deposits, were maintained in full vigor for four hundred years, and its existence continued till the year 1797, when it fell, with the city itself, at the conquest of Italy by Napoleon.

The *Bank of Genoa*, established in 1407, also to meet the necessities of the state, was the first to issue *circulating notes.* These, however, were not made payable to bearer, but passed only by endorsement. They were probably issued only for large amounts and employed in large transactions.

The *Bank of Amsterdam*, established in 1609, was the first instituted expressly to promote the interests of *commerce.* Its primary object was to remedy the inconvenience arising from the great quantity of clipped and worn coin in circulation. It was a bank of deposit only, the credit given in the bank-book for coin deposited was called bank money. The regulations of the country directed that all bills drawn upon or negotiated at Amsterdam, above a certain amount, should be paid in bank-money. This obliged every merchant to keep an account at the bank, and held its money at a premium. The *Bank of Hamburg* was established ten years later on the same plan.

Its deposits however, were in the form of bars of silver bullion. Both these banks professed to lend out no part of their deposits. But the guardians of the bank of Amsterdam proved at last unfaithful to their trust in this respect and caused its ruin. The bank of Hamburg continues to this day, commanding the highest confidence of the commercial world.

The *Bank of England,* founded in 1694, was the first institution that was authorized to issue *bank bills payable to bearer at sight.* It has been from the outset, an agent of credit for both the finances of the government and the service of commerce. Its entire capital now amounting with accumulated profits to eighty-eight million dollars, is permanently loaned to the government. It fulfills all of the offices we have named, being a bank of deposit, of loan and discount, and of circulation. It can issue seventy million dollars of notes, (none under five pounds, or twenty-five dollars) against that amount of government securities set apart for the purpose. It may also issue notes beyond this, against an equal amount of gold and silver held in reserve. Its notes are practically a legal tender everywhere in the kingdom except in payments by the bank, though the constitutionality of the law in this respect has been questioned. No note returned to the bank is ever re-issued. The bank is itself a private corporation, but it has the state for a partner, and the two stand together for mutual support. It acts as the agent of the government in managing the national debt. During the long Napoleonic wars, it rendered indispensable aid to the government, and under the pressure of urgent necessity, it was allowed in 1797, to suspend specie payment, and the suspension continued through twenty-five years. In England, outside of London and its vicinity, there are many joint-stock banks which also issue notes of circulation. But the bank of England is the great regulator of credit in all forms. It is the most powerful of all modern banks and its influence affects the commerce of all nations.

The Scotch banking-system is peculiar in its method of giving what are called *cash-credits.* When a man wishes a cash credit, he finds a bondsman, who promises to indemnify the bank for all that it may lose, by loaning to him within a certain sum; or else he places real estate in the power of the bank, to a sufficient amount to render it secure within the sum which he wishes to borrow. The bank then opens with him a cash account, or allows him to draw for any sum within the specified amount. He is charged interest only for the amount which he borrows. As fast as he is in funds, he deposits all he can spare, in the bank, and for everything thus deposited, he is allowed interest; so that his interest on deposits always diminishes the interest on his debt. Thus he borrows and pays, successively, and at stated seasons, the accounts are adjusted. This system is especially favorable to men of small means, and furnishes full security to the banks.

The *Bank of France* is like that of England, a private corporation, but unlike that of England, it does not directly manage the revenues of the state; but by lending freely to the government, it has borne it safely through extraordinary exigencies. Founded in 1800, since 1803 it has had the exclusive privilege in Paris, and since 1857, in France, of issuing notes payable on demand. Its notes are a legal tender in payment of all debts, public and private. During the revolution of 1848, and again on the breaking out of the war with Prussia in 1870, it was authorized to suspend specie payments. But so wisely were its affairs managed and so faithfully did the government keep its promises, that notwithstanding it has loaned to the government since 1870, six hundred million dollars, its notes have, except for a brief period, remained at par and now, January, 1878, it is resuming specie payment. The secret of its soundness and strength is the policy of keeping large reserves of coin in proportion to its circulation.

The first Bank authorized in the United States, originated in a union of citizens in Philadelphia, in 1780, to supply the army with rations. They were allowed to form a bank and to *issue notes* to buy the articles required. In December, 1781, this bank was chartered by the Congress of the Confederation, under the name of the Bank of North America, with a capital of four hundred thousand dollars. The next year, a charter was also granted to the company by the legislature of Pennsylvania. It still exists, being now one of the national banks of our country. In three or four of the other states, banks were soon after chartered in the same way.

The new constitution under which the government was organized in 1789, contains the clause that no state shall "*coin money, emit bills of credit or make anything but gold and silver coin a tender in payment of debts.*" This clause was no doubt, designed to prohibit the issue of a paper currency, from the evils of which the country had suffered severely. Under it, however, two questions have been raised. First, can a state authorize *banks* to do what it cannot do itself? Second, can the *national* government do what the states cannot do in respect to "bills of credit?" Both questions have been answered in the affirmative. Bank notes are not considered "bills of credit" in the sense of the prohibition. And the general government has been justified by the Supreme Court in making its notes, the greenbacks of to-day, which are simply "bills of credit," legal tender. Great numbers of *State banks* have accordingly been authorized and two *banks of the United States* have been chartered by Congress for limited periods. All of these banks fulfilled the three offices named, under various regulations such as different legislatures saw fit to impose, and hence were very diverse in their character and in the quality of the currency issued by them.

The *old State banks* were created by special charters of incorporation from the legislatures, and had more or less the character of *monopolies.* Sometimes the banking company was required to pay a bonus to the state for its peculiar privileges. The early banking of New England in the first years of this century was very loose. Each charter named the amount of capital stock to be provided. But in many cases, subscribers to the stock, instead of paying in cash, simply gave their notes for the amount of their shares. On this frail basis, a bank issued circulating notes freely, sometimes in denominations as low as twenty-five cents. Such a currency necessarily drove out specie, till but little was left in the region. That little was moved from bank to bank to keep up a show for the visits of inspectors. In due time, a collapse came. One bank in Rhode Island, founded in 1804, had a nominal capital of a million dollars. Of this, less than twenty thousand dollars was ever paid in. The directors, soon after beginning business, withdrew what they had paid in, leaving only about three thousand dollars. This was afterwards absorbed by one director, who bought out his eleven colleagues, paying them with bank funds, and then borrowed of the bank over seven hundred thousand dollars. When it failed, this bank had in specie $86.46, and its outstanding bills were estimated at nearly $600,000. Similar frauds were committed in Michigan and other western states, from 1833 to 1840, with like mischievous results. This mode of doing things was then fitly termed "*wild-cat banking.*"

The crash in New England led to the passage of stric banking laws and to the general demand for higher integrity in the management of such institutions. Thus many of the state banks of that section were placed on a sound basis and have maintained their credit unquestioned to the present time.

Various measures have been adopted from time to time for the purpose of keeping bank notes good. *The Suffolk bank system* of Massachusetts required each country bank to keep a certain amount of specie on deposit with the Suffolk bank in Boston for the redemption of its notes, and bound the banks together for mutual support. *The Safety-Fund act* of New York required each bank to put into the hands of the State Treasurer an amount of specie equal to three per cent of its capital stock. The safety-fund thus gathered was held to make good the debts of any bank that might become insolvent. This made it a matter of common interest for the banks to watch over and sustain each other.

The Free banking system was introduced in New York in 1838, as a substitute for the method of granting special charters. This allowed any number of persons to form a banking association on meeting certain prescribed conditions. Under this system, the redemption of bank-notes was provided for by the deposit with a bank-comptroller appointed by the state, of stocks of states and of corporations and bonds and mortgages, the issue of each bank being limited by the amount of securities held on its account. The value of this security would of course vary with the character of the deposit. This system was adopted quite generally by the states west of New York and continued until the present national bank system.

Two *Banks of the United States* have place in our nation's history, each continued for a period of twenty years. The first, projected by Alexander Hamilton, was chartered by act of Congress in 1791, with a capital of $10,000,000. Its charter expired in 1811, and was not renewed. The second was chartered in 1816, with a capital of $35,000,000. A bill for the renewal of its charter passed both houses of Congress, but was vetoed by President Jackson, and in 1836, it was closed as a government institution. Each of these banks rendered important service in the management of the national finances and as a bank of deposit, discount and circulation, helped to steady credit and to promote exchanges in all parts of the country. In the discussions concerning the re-charter of the bank, however, it plainly appeared what a political power such a corporation might become. The bribery, mismanagement and bold speculations with which the last bank closed its career, under a charter from the state of Pennsylvania, also clearly showed that such an institution might work mischief on a scale proportioned to its greatness. The people have therefore acquiesced in the decree which terminated its existence, and it is not likely that another bank of the United States will soon, if ever be organized.

Under the system of state banks, *frauds* and *failures* were frequent, entailing heavy losses on the holders of bills, and much distrust in business circles. Exchanges between distant parts of the country were thus embarrassed. For many years the premium paid in Wisconsin for New York money or drafts was from three to five per cent, adding so much to the prices of all goods brought from the East.

The existing *National Bank system* was established in 1863, by act of Congress, and the next year it was put under the charge of a bureau of the Treasury Department, the chief officer of which is the comptroller of the currency. Under this act, a national bank may be organized by any number of persons, not less than five, the capital in any instance, to be not less than $100,000,—except that in cities containing a population not exceeding six thousand, banks may be established with a capital of not less than $50,000. The capital stock in cities having a population of fifty thousand must be not less than $200,000. Not less than one-third of the capital must be invested in United States bonds, upon which circulating notes may be issued equal in amount to ninety per cent of the current market value, but not to exceed ninety per cent of the par value of the bonds deposited. The notes officially certified are receivable at par in the United States in all payments to and from the government, except for duties on imports, interest on the public debt and in redemption of the treasury notes. They are redeemable on demand in lawful money of the United States.

Soon after this system was instituted, an act of Congress imposed a tax of ten per cent on the notes of state banks used for circulation after August 1, 1866. This, of course, excluded these notes from further circulation and most of the old state banks reorganized under the national system. The present bank currency of our country, therefore, consists of notes of national banks which are of uniform value in all parts of the country and the payment of which is guaranteed by the United States. The whole amount of these notes which could be thrown into circulation was at first limited to $300,000,000; subsequently it was raised to $354,000,000, but it is now unlimited. The amount actually in circulation, Nov. 1, 1877, was nearly $317,000,000. These banks receive deposits, sell bills of exchange and loan money at the rate of interest allowed by law in the states where they are located. For the circulating notes, this system provides all the security which the credit of the United States can give, but offers none for deposits and other liabilities except that all shareholders are held individually liable to the extent of the amount of their stock, in addition to the amount invested therein. In case of the failure of a national bank, a receiver may be appointed by the comptroller to wind up its affairs.

Private Banking houses exist in all parts of the country, which receive deposits, make loans and negotiate exchange, but issue no circulating notes. Some of these have gained a character and standing and extent of business fully equal to those of strong banks. Their credit rests upon personal integrity, wise management and large resources accumulated through years of devoted industry.

Savings Banks, for the most part, without capital, simply receive and loan deposits. It was estimated in January, 1877, that the savings banks of our country held deposits amounting to one thousand million dollars. The entire banking business of the country, at that date was represented by seven hundred million of capital and two thousand million of deposits.

The Liabilities and Resources of Banks under the present system, set down in distinct statement, will further illustrate the principles and usages of these institutions.

The Liabilities are embraced in the following items :

1. *The Capital Stock,* which is the amount paid in as the basis of business, and for which the bank is responsible to the several shareholders.

2. *The Circulation,* which consists of promissory notes, signed by the officers of the bank, payable on demand, and circulating in the community as substitutes for money.

3. *Deposits,* which includes all sums standing on the books of the bank to the credit of individuals, partnerships or corporations, that are payable on demand.

4. *Balances due to other Banks.* This is a form of deposits incidental to the necessary open accounts of banks with one another, but they deserve a distinct notice on account of a peculiar danger which attends them. The exigencies of business require that the small interior banks should all have funds deposited with leading banks in the

great centres of commerce to draw against. The banks of the great cities accumulate liabilities of this kind to a large amount. In any emergency, these deposits are liable to be drawn out so rapidly as to bring on or aggravate a commercial crisis.

5. *Surplus funds or Reserves,* held to strengthen the bank against contingencies. The national bank act requires each bank statedly to carry a portion of its net profits to such a fund until it amounts to twenty per cent of the capital. The reserve is really an addition to the capital, and belongs to the stockholders, enhancing the market value of the stock. Hence it is properly reckoned with the liabilities.

6. *Undivided Profits and unpaid Dividends.* As the business of a bank runs on, there is more or less of current profit undisposed of, and some dividends are uncalled for. For all these the bank must hold itself accountable.

7. *Miscellaneous liabilities* embracing little obligations of various kinds not classified.

The Resources of banks may be distributed in the following classes:

1. *Loans.* This item includes all that is due a bank from its customers for discounts and advances represented by notes or other obligations, payable from day to day as they mature.

2. *United States Bonds* deposited with the comptroller of the currency to provide for the ultimate redemption of the bank-notes. These are held sacred for that liability, but have a value more than sufficient to cover it.

3. *United States Bonds* and other stocks, bonds, etc., purchased and held for investments, that the means of the bank may be productive and at the same time more readily available than they would be if loaned to individuals. A portion of the Reserve is often held in this form.

4. *Balances due from other Banks.* This corresponds to the similar item on the other side, and is incidental to the open accounts between banks.

5. *Real estate,* including a place for doing business and such other property of this kind as may, in settlement with its debtors or otherwise, come into the possession of a bank.

6. *Exchanges and Cash items,* embracing checks, sight-drafts and bills of exchange, more or less of which are each day found with a bank *in transitu.*

7. *National bank notes and Legal tender notes* held to meet daily calls for currency.

8. *Legal tender notes and specie,* held for the home redemption of circulating notes.

9. *Miscellaneous Resources,* a general term for various assets which find no place in the previous classification. With a sound bank, the amount under this item is small.

In a regular bank statement, the liabilities and resources thus presented, always balance each other, and the items on either side show the actual condition of the bank.

The Sources of Profits of Banks.—1. The chief profit of a bank comes through *Interest* received. Under the national system several distinct sources of interest may be noticed.

a. Interest on United States bonds, amounting to at least one-third of the capital, deposited with the comptroller of the currency. This at from four to five per cent inures to the benefit of the bank, unless its waning credit compels the comptroller to retain it for additional security.

b. Interest on the amount of circulating notes issued in loans, at the legal rates. This is so much added to interest on the bonds, except for the surplus of bonds above the amount of notes.

c. Interest on the remaining Capital, loaned to customers or held in productive stocks.

d. Interest on a portion of the deposits held. Since generally the amount of deposits brought in each day is about equal to the amount withdrawn, a bank may safely loan a portion of its average deposits. The sum total loaned by a bank is thus often two or three times the amount of its capital stock. Banks are strongly tempted at times to carry this loaning of deposits beyond due bounds so as to endanger the interests of both depositors and the banks themselves.

2. *Premiums on Exchange.* A small percentage, varying with the state of the market, is charged for drafts or bills of exchange on banks in other places. The aggregate of these premiums is considerable, and for the most part is clear profit.

3. *Commissions for Collections.* Banks, as institutions well known and of established credit, often have sent to them claims to be collected. As agents of credit in this form, banks assume no risks, but charge a small percentage for their service.

With prudent management, the profits of banks are sure and compare favorably with those of any other business. Of late, there has been some drawback from heavy taxation of these institutions by both the state and the federal government. The undue expansion of loans in order to increase profits, involves the danger of throwing the centre of gravity outside the base, with a conseouent downfall.

Currency.—In its broadest sense, this term embraces whatever in the usages of trade passes from hand to hand as a medium of exchange. Following the distinctions made by Mr. Amasa Walker, we may specify four kinds of currency.

1. *Value Currency.* This consists of coined money, made of the precious metals, and having in itself a uni-

versally recognized value which makes it always accepted. It needs no security except safeguards against counterfeiting and debasement. Respecting this, nothing need be added to what has been already said in treating of *Money.*

2. *Mercantile Currency.* This is a term adopted by Mr. Walker to signify promises payable on demand, issued by responsible parties for the payment of which in full, coined money or bullion of equal amount is held in trust by the promisors. This adds to the *security* of hard money the *convenience* of paper to represent real values. Such are the notes of the bank of Hamburg, and such were those of the bank of Amsterdam, in its best estate. That such a currency is both practicable and very serviceable is proved by actual experience in the past. It would need no restriction upon its issue. It would take care of its own reputation and would always be a satisfactory tender in payment of debts, without any enactment of law to that effect. It would also furnish ample scope for profitable and safe banking. It may, however, be questioned whether such a currency, with all the specie that could be brought into use by its side, would be sufficient for the requisitions of modern trade. Since credit has complicated itself so extensively with the currency of all the leading commercial nations, it will probably be impossible now to bring the commercial world back to the adoption of this basis exclusively. To attempt some approximation to it may be successful so far as to yield real advantages.

3. *Mixed Currency.* This is formed of written promises to pay specie on demand, issued in excess of the actual amount of specie held by the promisors for their redemption. It is called *mixed* because its basis is partly coined money of real value at hand, and partly credit in the form of notes discounted by the banks which throw it into circulation. The presumption is that the payment of customers' notes as they mature, will keep the bank provided

with whatever additional means may be required above the specie in the vaults, to meet the circulating notes as they are presented. The currency of the old state banks of our country was wholly of this character. Its security depended on the proportions of the specie and the credit severally to the amount of currency issued. In some states, these proportions were regulated by law so as to secure general soundness of this currency. In the so-called "wild-cat" banking before described, all such precautions were wanting, and the results could only be disastrous. In this category of mixed currency, our present national bank notes must also be placed. They are peculiar only in this respect, that the credit which enters into their basis, is the credit of the nation, and its strength is supposed to be such that only a small proportion of specie will need to be kept in store, even when specie payments shall be generally resumed.

In considering this kind of currency, it is important to note the distinction between its *ultimate redemption* and its *immediate convertibility*. Legitimate banking would always show a large margin for the ultimate redemption of the currency; and yet this might be with very insufficient provision for its immediate convertibility. This point is well illustrated by Mr. Walker in some statistics respecting the condition of the state banks in our country on the first of January, 1860. At that date the immediate liabilities of the banks of the United States were—

Circulation	$207,102,477	
Deposits	253,802.129	
Due other banks	55,932,918	
Other liabilities	14,661,815	
		$531,499,339
Immediate resources:		
Specie	$83,594,537	
Cash items	19,331,521	
Notes of other banks	25,502,567	
Due by other banks	67,235,457	
		$195,664,082
Excess of immediate liabilities over immediate resources		$335,835,257

It is evident from this statement that a special run upon the banks for the payment of circulating notes or of deposits, or both, (for both are apt to move together) would reveal their inability to meet their obligations. Yet, at the same date, the banks held the following assets as ultimate resources:

Loans	$691,945,580
Stocks	70,844,343
Real estate	30,782.131
Other investments	11,123,171
Total	$804,195,225
Deducting the excess of immediate liabilities as above	335,835,257
Surplus	$468,359,968

This margin seems quite sufficient to guarantee perfectly the ultimate redemption of the currency. The trouble is that under a *panic* the banks cannot realize funds from their assets, fast enough to meet the calls for the redemption of their notes and deposits. If they could do so, the necessity of declining to renew their loans would produce a commercial crisis, and cause a general bankruptcy of men in business. In such exigencies, the only relief is for the banks to suspend specie payments. This is a measure adopted not so much for the relief of the banks themselves, as for that of the entire community. The banks might perhaps save themselves, but it would be at the expense of almost certain ruin to hundreds, and of immense loss to all engaged in trade. The effect of a suspension is really to gain time for all parties to turn assets, curtail credits and bring the operations of business on to a sounder basis. It is always an evil but often a necessary evil which leads to wholesome results. The undue expansion of credit during a period of suspension, is an abuse which can only aggravate the mischief.

Our national bank system furnishes no certain safeguard against this contingency. Ordinarily, the government bonds can be converted into cash at once, and so far they are better than the discounted notes of individuals for the immediate conversion of circulating notes. But it is easy to conceive of an emergency when the credit of the government might be impaired or subjected to a special strain, so that the market would be glutted with bonds. Coincident with this, a run on the banks for the payment of deposits would be likely to take place and the immediate redemption of circulating notes would be quite impossible.

The mixed currency of England is in some degree guarded with respect to this liability by *precautionary measures of the Bank of England.* Its officers have an eye continually on the flow of specie. As soon as it appears that the stock of specie in the country is diminishing, the bank raises its rate of interest. This tends to reduce the discounts and is a signal to all of danger and a call to curtail credits. As a consequence, the bank of England and all other banks of circulation fortify themselves by adding to the amount of their specie reserves. Thus, often by timely precaution, the danger is averted. When on the other hand, the amount of specie seems superfluous, the opposite course is taken ; the rate of interest is reduced and through increased loans, the funds go into circulation. The central banking institution serves as a great balance-wheel to regulate within certain limits both the currency and credit in trade.

4. *Credit Currency.* This consists of engraved notes bearing promises of a government to pay specified sums of money, at a distant or indefinite period in the future. These by force of law or peculiar circumstances, are accepted as money and fulfill its functions. The "Continental money" of revolutionary times, the French "Assignats" of 1790, and the United States treasury notes, now in circulation, known as "greenbacks," are examples

of this kind of currency. It has no basis but *the credit of the nation.* It is but a *symbol* of value, and has purchasing power only as men have faith in the promise. If the course of the government is such as to impair that faith, the purchasing power of these symbols declines, until at last it utterly fails, as was the case with the American continental currency and the French assignats.

On the face of the "greenback" before us we read

"*The United States will pay the bearer ten dollars.*"

The seal of the United States treasury and the signatures of the Treasurer and of the Register of the treasury certify the genuineness of the promise and bind the government to its fulfillment. On its back we read, "*This note is a legal tender at its par value for all debts public and private, except duties on imports and interest on the public debt.*" This engraved slip of paper is then simply an *evidence of debt.* As it circulates from hand to hand, it can only *transfer debts; it cannot pay them.* You may offer this note to your butcher in payment of his bill. He is obliged to accept it, but by the transfer, the government just takes your place as his debtor. It is not itself, as a gold eagle would be, a "quid pro quo" for the meat he has furnished you. When passed back to the government for taxes or other public dues, it is a mere *counter* for canceling reciprocal obligations. Its only support, as it flies hither and thither, is that word "*dollars*" which means real value—a certain weight of gold or silver—which, some day, it will bring to its bearer. Withdraw that word or nullify its meaning by a hint or a suspicion that the government never means to redeem the promise, and it will drop at once, like a dead leaf to the ground, speedily to decay. Yet, men talk as if a nation's trade could be carried on with a currency made of these government promises, *forever irredeemable.*

A credit currency can circulate only in the country *where it is issued.* There it inevitably supplants gold and silver which are sent abroad to adjust exchanges with other countries. If, as is sure to be the case, these notes are issued to an amount exceeding the natural demands of trade for a medium of exchange, their value will be depreciated, and specie, as compared with them, will bear a premium. That premium will rise or fall as men's confidence in the ability or policy of the government varies, and its amount indicates the extent to which the currency is depreciated. It is not the value of gold which changes, but that of currency only. In such circumstances, no direct legislation can prevent or fix the premium on gold, nor change it except for the worse. The force of civil law is as powerless to resist the operation of the laws of value, as was the voice of the old Danish king in England to stay the inflowing ocean-tide.

A credit currency tends to raise the prices of all commodities, and to keep prices fluctuating. The paper symbol comes necessarily into comparison with values of every kind. It has in itself no natural basis of value. It rests on credit only, not at all on its cost. Its acceptability depends mainly on the *hopes, wishes* and *anticipations* of men. In a time of general confidence, the government is led to over-issue its promises. The effect is at once to enhance prices; and the first consequence of this is that trade is unnaturally stimulated and demands a yet larger issue of currency, until the day of reaction and distrust comes. In the actual experience of nations as recorded in history, it appears that no government, once drawn into the issue of a credit currency, has been able to adhere to its purpose, often taking the form of a distinct promise, to limit the issue to a certain amount. The door once open is not easily shut—the power released is not easily curbed again. Mr. Walker says with truth, "When the Secretary of the United States Treasury endeavored to "*float*" his bonds by the issue of credit currency, he unfortunately floated all the merchandise of the country at the same time, so that the rise of prices compelled him to pay double for all the government needed; and hence he lost at least one-half of all the bonds that were thus sold." At the same time, it produced a mischievous disturbance in all commercial transactions, essentially changing the force of existing contracts and reducing the value of fixed incomes.

Through this enhancement of prices, *a credit currency lays a direct tax on a people*, which is measured by the degree in which the currency is depreciated. If a ten dollar treasury note will buy only eight dollars worth of merchandise, at the gold prices, he who uses the note really pays a tax of two dollars in making that purchase. The government laid this tax, though it gets no benefit from it, except through the extension of its credit. If such a currency is never redeemed, the country is taxed for its whole amount, but the tax is very unequally distributed. If it is finally paid, the sum total is greatly increased through the enhanced prices paid by the government for things needed in the hour of its extremity. For that final payment, some contraction of currency is inevitable, and while it is going on, business has to be done on a "falling market," that is, with prices declining. This makes men groan and murmur; they forget that they are only paying the cost of their cherished illusion—the apparent prosperity of the day when the inflation of the currency gave them what they deemed the benefit of "a rising market."

A Credit currency is a forced Loan. This appears from the manner in which it is issued. Note for example the course of our government in issuing its treasury notes. It was in immediate need of provisions and munitions of war. Instead of raising means for this exigency by taxes or the sale of bonds, only, it contracted with manufacturers and producers for the articles needed and gave in payment these promises. In other words it borrowed the ships, guns, ammunition, provisions, etc., in the first instance of those who produced them, and then to relieve them from carrying the whole burden of this loan, by the legal tender act, it obliged everybody to share it. All were compelled to accept greenbacks for whatever might be due them, and so every bearer of a greenback is made for the time a creditor of the government.

A credit currency thus involves *a violation of the laws of value and an inevitable disturbance of the commerce and industries of a nation.* It has also a *demoralizing* effect on the honor and integrity of a people. The longer they are kept familiar with it, the more is the tone of moral sentiment among them corrupted. Austria presents a sad example in point. We give the sketch as drawn by a trustworthy historian for the state of things in 1816. Though that state is in a better condition now, her moral and commercial character still suffers from the same malady. Thus we read :

"Undeniably the paper money exercised the worst influence on the *morale* of the people. Frugality and diligence were lost virtues. Vulgar pleasure-seeking and wild extravagance became habitual even in the lowest classes. Of what use to care for the future ? Why not enjoy to-day all the pleasures of the senses ? How could any one hesitate to pay two hundred gulden for admission to a ball ? In fact, the "money" had no value, and if one stood reflecting, he might lose ball and money both. The very fact of speaking continually of large sums, which however in truth amounted to but very small value, stimulated to frivolity and folly. So the ground was prepared for developing the celebrated 'Viennese' disposition ; and the loafer-life in which the hot-spiced pleasures of the palate seemed the highest good, became indigenous to the unique city of the emperor."

No thoughtful observer can fail to observe similar tendencies growing steadily stronger in our country, as our credit currency continues its presence and influence in the land. The act of a government creating such a currency is a direct interference with the rights of property and with the fundamental law of exchange, which requires the free consent of parties to all transfers, and the maintenance of contracts in full force. That act can be justified only by stern necessities, in circumstances which jeopard the nation's existence. When the crisis is safely passed, the nation is under the highest conceivable obligation to bend all its energies to fulfill its promises, to relieve the general disturbance and distress, and to restore the brightness of its commercial honor, as speedily as possible.

CHAPTER XXIII.

FREE-TRADE *vs.* PROTECTION.

Definitions. As a term of Political Economy, **Free-trade** *expresses the principle that a nation's wealth and prosperity are best promoted by securing the utmost freedom for the exchange of all commodities among its own people, and with the people of other countries.*

As a term of the same science, **Protection** *expresses the principle that in order to promote home-industry, the importation of certain articles from countries where they can be produced cheaper than at home, should be prohibited or restricted by heavy duties.*

From the bare statement of these principles, it is evident that they are opposed to each other, propounding two distinct and conflicting economic systems. We have accordingly two schools of political economy in which the expounders of the science are classed as they advocate the one or the other of these principles. In practical legislation, also, two opposing policies corresponding to these two principles have been in conflict through all the history of our country. The issue may be best considered with the two principles distinctly before us.

It is obvious also that *the system of protection touches all of the four branches of political economy.* As proposing measures to stimulate home industry, it is directly concerned with the department of *Production.* As it aims to enhance the prices of certain commodities, it as directly affects *Consumption.* As it modifies both private profits and public taxation, it comes into contact with the laws of *Distribution.* And as it obstructs to some extent the freedom of commerce, it has to do especially with *Exchange.* Such being the case, an advantage conferred by the system in one direction, *may be* offset by a disadvantage produced elsewhere. Hence, for the intelligent discussion of the question before us, the elementary principles of our science in all of its departments must be kept in view. We have therefore chosen this place for the treatment of this subject, after the presentation of the elements of our science under its several divisions.

The Presumption is in favor of Free-trade. This appears from several considerations.

1. *For all economic processes and results, in their general aspect, the law of freedom is most favorable.* This fact has come distinctly to view through all our previous discussions. Thus we have seen that for *the production of wealth,* labor and capital meet most advantageously when each is free to apply itself to whatever industry promises the largest returns. Economy in *the consumption of wealth* demands that all be free to purchase the means of gratifying their desires at the least expenditure of value practicable. The individual needs to buy where he can get the most for his money. It is equally for the interest of the community to bring its supplies from the cheapest market. We have seen too, that *free competition is the grand regulator in distributing the proceeds of industry* to the parties concerned, so that the labor, the skill, the capital and the managing capacity shall each receive its due share. It has further been made plain that the ultimate disposal of products, through *the processes of exchange* is most profitable with *the widest range of market, the freest channels of communication and the best facilities for transportation.* The interests of these several departments of economic action are linked together and in the

first aspect, the rule of freedom appears essential to the prosperity of all.

2. *The right of Property implies freedom for every one to do what he will with his own,* provided he does not infringe the rights of others. Any law restricting the free exchange of one form of property for any other, or its free transfer from one place to any other is "*prima facie*" a violation of a natural, universal, inherent right. Every man is entitled to use the products of his own labor as may seem most for his advantage, to exchange them with citizens of his own country or with foreigners, as he may get for them the largest compensation. The denial of this right or the interference with it by a government, bears a semblance, to say the least, of oppression, of robbery. The presumption is against it.

3. *The Social Instincts of men prompt them to the practical adoption of this principle of freedom of exchange.* A solitary settler in the wilderness reduces his wants to the minimum, and turns his hand to all sorts of occupations to satisfy them, making himself hunter, fisherman, farmer, builder, blacksmith, and so on. When another joins him, a division of labor and free exchange begin. As numbers increase and a community is formed, diverse employments are more and more distinctly defined and distributed, mutual exchanges are multiplied, and both wants and the means of gratifying them rapidly increase. An impulse of our nature leads to the opening of communication with other settlements, and to the making of that communication as free as possible. Thus one after another, physical obstructions are removed, the winding trail gives place to an open road, bridges are thrown across the streams, steam supersedes sails for navigation, the locomotive and rail-car are brought in to shorten distance as measured by time, and the electric telegraph, set up between different and distant localities, annihilates time and

space and permits contracts and all operations of the commerce of the world to be adjusted to present facts in all parts of the world. Every new discovery or invention which tends to increase freedom and facilities for exchanges is hailed with joy by all civilized people. The common sense of men, expressed by their instinctive action, thus pronounces universal freedom of trade a common blessing. The civilization of the world seems to advance in accord with this principle. Hence, the presumption that it is a wise and right principle.

4. *Free commercial intercourse between the nations of the earth tends evidently to establish their mutual relations upon a basis of peace and good-will.* By the mutual exchange of values, different peoples become acquainted and assimilated with each other, and the feeling of interdependence creates a common interest out of which grow the bonds of abiding friendship. Within the last two hundred years, international law has come to the dignity of a distinct science. Its development and growth have been coincident with the expansion of commerce under the improved facilities secured by recent inventions. The spontaneous and necessary intercourse of nations originates international law, and leads to the establishing of rules for governing that intercourse. The more the principles and rules of this department of law are studied, the more clearly does it appear that through free commercial relations, the separate interests of all nations are bound together in one, so that each is concerned in the welfare of every other, and each is induced to place itself in an attitude of friendship, rather than of enmity towards others. Free-trade appears thus the promoter and pledge of peace in the world. The broad competition which it incites tends to swell the sum of human comforts and joys, and to impel every branch of the race to improve to the utmost the conditions of human living.

5. *The nations of men are of one blood and constitute one family; and all the face of the earth with its great diversity of resources and productions is given to the one human race.* The blessings which the earth has to yield are developed in largest measure, as the people of every land devote themselves to the production of those forms of wealth for which their country is best adapted; and the happiest distribution of those blessings is secured by intercommunication and mutual exchanges made as free as possible between all nations. In the constitution of our nature, in the divine Scriptures and in the records of human experience alike, we read this fundamental, economic law. The enmities, the restrictions, the isolations which human selfishness has prompted and maintained are in violation of this law. The miseries consequent, under which the nations have groaned, are but the penalty of violated law. The broad philanthropy which Christianity inculcates and aims to make universal for the world's emancipation from all evil, embraces this principle of freedom for trade.

In view of these things thus concisely presented, we are certainly justified in saying that in the issue before us, the presumption is strongly in favor of free-trade. On the advocates of Protection therefore is thrown *the burden of proof* for their principle of restriction. Let their arguments be fairly stated and candidly considered.

Arguments for Protection.—These arguments concentrate on the promotion of home-industry, and vary only as they severally present different aspects of the leading thought. It is said,

1. *Protection is necessary to secure that variety of industry and that balance of different industries which are essential to a people's prosperity.* This is the broad proposition which underlies all, and in a sense, includes all the

lines of argument adopted by the advocates of this system. The proposition embodies two statements which are the premises of a syllogism. The major premise is that a balanced variety of industry is essential to a people's prosperity. The minor premise is that Protection is a necessary means to this varied industry. If both are established as sound and true, the conclusion follows that the protective policy is a necessary means of highest prosperity.

The first statement may be resolved into several particulars to bring out its full force, as follows:

a. Every country has *a great variety of resources,* and the development of all its resources conduces to its greatest wealth.

b. Among the population of every country, there is a corresponding *diversity of native talent,* and labor is most effective when every one has scope for doing that for which he is best fitted.

c. The actual *wants of men are equally diverse,* and the highest happiness of a community depends on the degree in which all are provided for.

d. A diversity of occupations *makes a home-market* for all sorts of products, saving cost of transportation, favoring division of labor, and binding all classes together by ties of mutual helpfulness and common interests.

e. Varied industry favors *the social and moral advancement* of a people, quickening and broadening minds, enlarging hearts and impelling to noblest action in the lines of rectitude and benevolence.

We recognize all of these statements as elementary principles of our science which have come before us repeatedly through our previous discussions. They need but a single qualification to secure universal acceptance. It does not follow from the general advantage of varied industry, that a people must always *hasten to develop* every source of wealth existing among them, or *maintain at all hazards,* *every possible form of industry.* In exceptional cases, a nation may ~~have such peculiar~~ advantages for a certain kind of production, that its wealth will be most increased by concentrating its energies on that to the neglect of others. The people of Barbadoes have ample facilities for raising provisions, but they have much greater advantages for raising sugar. Therefore, it is good policy for them to produce mainly sugar, and get provisions by exchange from countries where the cost of raising them is greater even than it would be on their own soil. With this qualification, the advocates of free-trade not only admit the advantages of varied industry, but magnify them in support of their own theory. It is on the second premise that the real issue is joined.

The affirmation is that protection is *necessary* to secure diversified industry. The strong reason urged in support of this proposition is thus presented : "*Foreign competition* crushes out the home production of all but the rudest and coarsest articles of manufacture, and prevents the establishment of a varied industry, unless the government interfere, as the personification of the nation, and its coordinating power, to restore the equilibrium by discouraging imports."

We may fairly ask how foreign competition is able to do this. The answer must be that in some other country, certain articles can be produced more cheaply than at home. We ask again, why their production costs less abroad. According to the principles of our science, the answer comes that it must be on account of peculiar advantages in three respects. Either the foreign country has superior *natural resources,* or it has *more abundant capital,* free to be employed in the contemplated industries, or it has *laborers in greater numbers and better skilled* for the work to be done. The argument implies that the interference of government discouraging imports, tends to counterbalance those advantages which the foreign land possesses. We can readily see that it will do this, so far as those engaged in the protected manufacture are concerned. The action of the government forces up prices so that they can make the goods and realize a profit. But evidently, this is at the expense of the community generally. The duty is a tax laid upon the many for the benefit of a few.

For illustration, suppose that English broadcloth can be sold in Beloit, at five dollars per yard, but it will cost eight dollars a yard to manufacture cloth of the same quality here. To encourage home-industry, a duty of three dollars per yard is laid on all English cloths imported. This will prepare the way for that industry to be set up; but plainly it is sustained only by a tax of three dollars a yard, paid by every one who wears broadcloth of either domestic or foreign production. The real benefit of this tax goes to the manufacturers. The case is the same as it would be if, without the duty, every man had been allowed to buy cloth at five dollars a yard, but had been obliged for every yard that he bought to pay three dollars to the home-manufacturer. This is a steady draft on the capital of the country—a burden laid upon the products of other forms of industry.

To relieve this aspect of the matter, it is said that this burden is but *temporary*, and will be more than compensated by the greater ultimate benefits of a diversified industry fully established. Protection is needed only *to nurse our manufactures in their infancy*, and to hasten their development. After being thus supported for a time, they will grow strong enough to defy foreign competition. Then prices will be reduced, the tax can be removed and a lasting benefit will be realized.

The question arises again how is this result to be brought about? Recurring to the laws of production with reference to the three particulars of resources, capital and laborers, it is quite evident that *protection cannot add to the natural resources of a country*, so as to put all countries in this respect on a level. Protection can never give to France the coal-fields of England, nor furnish the prairies of Illinois with the water-powers that abound in New England, nor secure to Germany the facilities for raising cotton which the southern states of our republic enjoy.

What protection does to accomplish the result claimed for it, must be then, through its effect on *capital* or *labor*. The enactment of a protective tariff obviously *cannot create capital*. Capital springs and grows only by industry and frugality. It is the fruit of *saving*. As products are increased and expenses diminished, there is a chance for adding steadily to capital the difference between wealth consumed and wealth produced. But, as we have seen, a protective tariff enhances the price of certain articles of general consumption. It may touch the materials of industry; it may touch things necessary to the support of laborers. Just so far as it does this in either direction, it increases the cost of production and the cost of living. and thus diminishes the chance for saving. It makes capital less effective except in the line of the protected industry. The capital of the community generally is impaired, not strengthened.

Much the same thing must be said of the effect of this policy on *labor*. Legislation has no power *to create men*. The natural increase of population depends chiefly on the means which a country possesses for the support of a population, and the facilities it offers for the accumulation of wealth. Where the necessaries of life are abundant, and there is free scope for profitable employment, large families are raised. The same considerations constitute the chief attraction to draw in foreign laborers. Men emigrate to better their condition. The first effect of protection is simply to concentrate labor on one employment, and to lay a special burden on all others for the benefit of the favored occupation. *Nominal* wages may thus be raised, but *real wages are reduced* by the enhanced price of the necessaries and comforts of life. This means that the stimulus to labor generally and its efficiency are impaired.

The advocates of protection in their reasoning, seem to lose sight of the fact that this policy can do little more than to change the direction of both capital and labor. When articles of foreign production are imported, they are to be paid for by the products of home labor and capital, and the question of economy is, which is the cheapest—which will bring the largest returns for a certain amount of labor, to make these articles ourselves or to make something else with which to buy them? Left free from government interference, home labor and capital will lay hold of whatever natural resources a country possesses, and with reference to both home wants and foreign wants, produce the things most feasible and desirable, at the cheapest possible rates. The surplus of these products will pay for the foreign goods purchased. Intelligent judgment and free choice determine the direction given to capital and labor, to establish those industries which are most advantageous. But protection comes in to overrule this spontaneous action. It assumes that a government can judge better than themselves what is for the people's advantage, and so dictates a diversion of capital and labor to new employments. Such a change is in itself a disadvantage. It involves more or less loss of capital and of skill in labor.

The protectionist says, "Nobody asks that protection as a system shall be *permanent.*" Yet it is an incontrovertible fact that in the history of protective legislation, no "infant industry" that has been nursed by this policy has ever grown to such maturity of strength and self-support as to be ready, voluntarily, to dispense with the helping hand of law and face foreign competition in its own strength alone. The English landholders clung to their corn-laws to the last. The iron manufacturers in our country have at times, under high tariffs, done extensive business and made great profits, but they have kept up the prices of their product and always resented every proposed reduction of the duty. Is not this fact a virtual confession that "Protection fails to protect," that this interference of government to direct the industries of a people fails of its aim ?

But against the assertion that protection is *necessary* to develop varied industry, it may be positively affirmed that *there is a better and surer way of reaching that result.* Where no interference or obstruction is allowed. there comes a spontaneous development which is safe and constant because it is in accordance with nature's law. We may unfold the thought in a few distinct yet connected propositions as follows :

a. There is a natural growth of human industry, the laws of which are as fixed and certain as those which pertain to the growth of vegetation.

b. Free competition is the healthy *stimulus* to that growth.

c. Under the natural law of development, industry will be applied to the several native resources of a country as fast as *the increase of labor and capital* will warrant.

d. Men's instinct for accumulation following diverse individual capacities, tastes and predilections, is the safest *guide* to determine the order in which labor and capital shall be applied to those various resources. Under it, whatever promises a profit will be undertaken as soon as it can be without sacrificing a greater profit elsewhere.

e. The attempt to force labor and capital into certain employments before their time, deranges the order of nature and produces *reactions* which hinder the desired result.

f. At any stage of this development, if exchange is free, *foreign products are purchased with the fruits of a people's most efficient labor*, that is, with those articles which they can then produce to the best advantage; which they can best afford to part with, because they are obtained at the least cost. By all such advantageous trade, capital, the prime element of varied industry, is increased and labor is sustained.

g. When by this natural progress, a people come to take up a new industry for which they have natural advantages and God-given capacity, *no foreign competition can crush it*, for even in its infancy, it is charged with the nation's life and strength.

h. An industry which is not indigenous, which has no natural advantages, or which is prematurely set up and fostered by artificial means, *can have only a sickly, uncertain life, and is supported at a wasteful expenditure of a nation's resources.*

2. *It is strongly urged as an argument for protection, that it is a necessary means of maintaining national independence.* This is a very specious argument, because the term *national independence* has a patriotic ring to which the popular ear and the popular heart are peculiarly sensitive. But as used in the proposition before us, it simply covers a subtle sophistry and makes it pass for sound reasoning. For an individual and for a nation, there are two kinds of independence. One may withdraw from his fellow-men to a cave in the wilderness and in contact with none else, keep himself alive and possibly find interest and enjoyment in a hermit life. He may glory in his *independence.* But is there anything noble in such isolation? Is it the way for a man to make the most of himself? Is

this the kind of independence which young men should be taught to aspire to and maintain? The independence of genuine manhood is of another sort. It is *individuality* of capacities, acquisitions and character which is able to stand on its own basis in full and free relations with fellow men. It is, in the midst of society, a distinct personality, giving and receiving, supporting and supported, blessing and blessed through the varied intercourse which nature prompts and by which the completest development of the man and of the race is advanced.

The same distinction is to be recognized with respect to nations. There is an independence of *isolation* such as China and Japan, until recently, maintained—such as the despot Francia attempted to secure for Paraguay, when he stopped all ingress and egress, held the shipping in the river till it rotted and fell to pieces, and compelled his people to restrict their desires to those things which they could produce for themselves. But that independence which is the strength and glory of a nation is of another kind. It is an *individuality of national resources and character* which stands up in the full brotherhood of nations, and in the consciousness of its own strength enters into all offices of mutual dependence through which nations grow and civilization makes progress.

The policy of protection fosters the narrower kind of independence. It is a *restrictive policy.* Carried out to its logical conclusion, according to its manifest tendency, it leads to isolation. The sophistry referred to consists in the concealment of this fact, while the term "national independence" is used in its broader, nobler sense. To link protection as a cause with such independence is a pure assumption, false and deceptive.

In an economic point of view, the real independence of a nation is *commercial* independence. That is reached and secured, as a people, by the development of their own resources, are able to provide for themselves, in part by their own productions, and for the rest, by commanding the needed productions of other nations, by offering in the market of exchange, what other nations want. The basis of such independence is the home production of wealth. But the way to increase wealth is to use to the best possible advantage the gifts of nature, and then, in the world's great mart, sell where things can be sold on the best terms and buy where things can be bought on the best terms. That nation is strongest and most complete in her independence, which can open most freely every avenue for the wealth of the world to flow in upon her, because, as the fruit of her own vital energies, freely exerted, she has wealth in abundance to give a fair equivalent.

A nation comes to this full maturity by a steady *natural growth,* just as a child comes to full manhood. In both cases, *freedom* is the law of growth. The old mythology tells us that once the head of Zeus was opened, and there leaped forth into the world a virgin full grown and full armed. But not even in myth or legend, do we read of any nation thus born in full maturity of strength. The effort by protection to hasten a nation's independence is like binding an infant's limbs in splints, that it may sooner stand alone. The artificial appliance may develop prematurely a single function, but it is at a wasteful expense of general vigor, and is quite sure to induce chronic weakness and deformity.

The presentation of these two arguments has covered nearly the whole ground of the discussion, and brought into view the leading points. A few words will suffice to dispose of what other arguments we need to notice.

3. *The advantages of a home-market for agricultural products are often urged in favor of the protective system.*

Certainly it is an advantage to a farmer to find in a manufacturing village near, a market for his produce. It will save him a part, at least, of the cost of transporting it to the distant commercial city. But if this market is made and sustained for him by a protective tariff, he must pay for tools, for salt, for dry-goods, for all the manufactured articles he needs, from twenty to fifty per cent more than they would cost him under the rule of free-trade. May not this offset all the gain on the other side?

The assumption that protection creates the home-market is a fallacy. These centres of varied industry grow up naturally and healthily with the increase of population and wealth. Mechanical genius, the investigating turn of mind, the energy of will-power, managing capacity—these qualities come not of protective tariffs. They are the gifts of God to men. Left to themselves, they go out spontaneously to lay hold on all gifts of God in nature, and using all available capital, set up the workshops of industry, and bring out the treasures of wealth in ever-increasing measure.

Furthermore, the term "home-market" has force in this discussion, only as it implies the production at home of *all manufactures* wanted and the consumption at home of all agricultural produce raised—a condition of things attainable, if at all, only after the lapse of centuries. Meantime, a people must buy the things they cannot produce, by selling the surplus of that which they can produce. For a long time to come, this country will have a large surplus of breadstuffs, cotton, petroleum, silver and gold to dispose of. We can sell to others only as we give others a fair chance to sell to us. Domestic commerce and foreign commerce are necessarily interlocked. The prices of agricultural produce in our home-markets are determined by the prices in markets abroad. Where trade is freest, the prices will on the average be the best. Hence, *free-trade is the essential condition of a sound and healthy home-market.*

✓ 4. *It is said that the free introduction of foreign fabrics tends to bring our American laborers down to the level of the "pauper labor" of the old world.* The expression "*pauper labor*" suggests something frightful to independent freemen, and hence with our common people, this plea is probably more effective than any other; but a few simple facts take away the point of this argument. The laborers in England, which is the old country chiefly referred to, who are the lowest in the scale of living, are those engaged in agriculture. *Our agricultural laborers,* though they have no benefit from protection, may safely defy their competition. The *nominal* wages of skilled labor employed in manufactures in England, are lower than those of the same class in this country. But careful inquiry shows that the low wages of the English artisan will go quite as far as the higher rates paid here in securing the necessaries and comforts of life. The competition then, is unequal only in appearance. It can have no effect to degrade our working-men. If our protective duties were removed, wages might decline in full proportion. Even if the case were as strong as the argument implies, the low wages of foreign labor would be of advantage to all consumers at home, including *our laborers.* We should get certain articles all the cheaper, and our labor devoted to other forms of production for which we have advantages, would bring larger returns through the exchange.

5. *It is said again that protection is necessary to the development of skill in manufactures.* We may turn the previous argument to meet this. So long as wages are higher in our country than abroad, they will bring over to

our aid the best acquired skill of the old world. For the development of advanced skill and the invention of new devices, free, sharp competition is the highest stimulus. Protection interferes with this and thus removes the spur to best endeavor.

6. *Protection is often advocated as a means of Retaliation.* A nation will not fully receive our products and we, in order to punish her and oblige her to change her policy, refuse to receive hers. This certainly is not a virtuous nor an honorable motive to action in either an individual or a nation. Retaliation is not generally wise, since in the hot spirit of vindictiveness, it prompts men to measures which are likely to injure themselves as much as their opponents. A worthy example of self-reliance and manly generosity will be more effective to lead another country to change her policy, than any threat or act of retaliation. If the narrow policy of another nation excludes our products, so that we cannot trade directly with her, it may yet be both feasible and profitable to procure her products by means of a double exchange through a third country. We surely injure ourselves when we pay five dollars for an article which we could just as well get for three. There is no profit in the mere gratification of spite.

7. *It may be asked, if the policy of protection is so unreasonable, how is it that so many men of clear intellect and practical wisdom approve and maintain it, and that, through the centuries past, it has been by the nations so generally adopted?* The question is well answered by the French economist Bastiat, in a paper entitled "That which is Seen and that which is not Seen," in which he shows that protection is maintained principally by a view of what the few producers gain and a concealment of what the many consumers lose; and that if the losses of

the million were as patent and palpable as the profits of the few, no nation would tolerate the system for a day. The apparent benefit of protection is concentrated and strikes the eye at once, while its evils are widely diffused and escape notice except on thoughtful investigation.

The theory of protection indeed, comes to us, an inheritance of the past, supported by a kind of prescriptive right from long usage. But tracing it back we find its origin in the old doctrines that nations are natural enemies to each other, that in every profitable exchange, "What one man gains must be another man's loss," that commerce can benefit one country only as it injures another, and that a nation's wealth is increased only as *money* is brought in and held fast. These false doctrines led to the most harassing restrictions on all commercial intercourse. The different trades were organized as rival guilds, each fenced round with secrets and endowed with peculiar privileges. Tolls were collected at every city's gates on all goods brought in. Each nation sought to build up its own industry by breaking down that of others. Strange enactments were made to favor particular manufactures. Thus to protect the woolen manufacture in England, it was ordained that no man might buy wool within fifteen miles of the sea without permission of the king, and that every corpse should be buried in a woolen shroud. Not a century and a half ago, a great statesman of England said in the house of Lords, "If our wealth is diminished, it is time to ruin the commerce of that nation which has driven us from the markets of the continent, by sweeping the seas of their ships and blockading their ports." Happily, with the advance of civilization, other and better views have supplanted those old doctrines and the absurd regulations have, for the most part, disappeared from the statute-books. The protective system, however, still lingers, the last phase of feudal isolation, and, strange to say, rules with strongest sway the policy of our free republic. How long shall it resist the spirit of liberty and fraternity which is rallying all nations to mutual good-will and coöperation?

Positive Objections to the system of Protection.—From the actual operation of the system, evils proceed which expose its inherent impolicy and injustice. Here we deal with plain facts.

1. *Protection introduces and fosters antagonism between the different industries of a country.* The idea of giving protection to every branch of industry is absurd. The theory implies special encouragement to the production of certain articles. But when government interferes to favor one industry by raising the price of its products, it taxes all other interests. The duty on foreign coal is a benefit to those who work our coal-mines, but an injury to every manufacturer who uses coal. Hence collision of interests between the producers and the consumers of coal. The wool-grower finds that the duty which protects the woolen manufacture increases the cost of his clothing, while the competition of cheap wools from abroad keeps down the price of his product. He applies for protection. But if granted, this will reduce the manufacturer's profit, and he protests and resists. Thus two parties whose interests are really one, are set against each other in a conflict injurious to both. The boot and shoe manufactures of our country, through the Yankee genius for invention, with no special protection, grew naturally into one of our most profitable branches of industry. But a duty laid on leather and hides, for somebody's protection, robbed our manufacturers, in part at least, of their rightful advantage in the world's market. The main point of our objection is very clear in the case of the duty on foreign steel, as presented by Mr. Amasa Walker. "The whole num-

ber of persons engaged in the direct manufacture of steel in the United States, as the special Commissioner of Revenue informs us, does not exceed three thousand five hundred; while the number of those who use steel as *a raw material* for the manufacture of axes, chisels, files, cutlery, spades, shovels, pistols, machinery and other tools and implements, is not less than two hundred thousand; while an addition of those indirectly interested in having cheap steel would swell this number to one million, five hundred thousand." In this case, the few more easily combine to perpetuate their advantage, on account of each one's large and immediate interest; while the disadvantage is distributed in smaller proportions to the many and their eyes are only half opened to discern its measure and its cause. But the conflict begins to be defined and the issue must in due time be joined.

2. *The unnatural stimulus given by protective legislation leads to over-production and consequent stagnation and failure.* The first effect of a high duty is to raise prices and so to increase the profits of the protected industry. Men eager to get this advantage turn capital and labor into this form of production and push their business with great zeal. Old establishments are enlarged, new establishments are hastily and ignorantly set up. They are run by untried managers, worked by inexperienced hands and turn out an imperfect product in great profusion, till the market is glutted, prices decline and the end is stagnation, and with many bankruptcy. All this was strikingly illustrated by facts in the manufacture of paper. During the late war, a heavy duty was laid on the import of paper, and at the same time, the demand was greatly increased. The price of the article rose rapidly, yielding extraordinary profits to the mills already established. This led to the enlargement of the old mills, and a host of new men rushed into the business. During the years

1864–6, just as the war was closing, more paper-mills were set up than during the twelve years previous. As a consequence, the market was over-stocked just as the special demand ceased, prices fell and general stagnation followed ; and when in 1869, a great freshet in Massachusetts swept off a number of these mills, a journal devoted to the advocacy of protection said, "This disaster will work to the advantage of those who escaped the flood, and we doubt not that those mills that did stand will do a better business in consequence of the lessened supply." Surely there must be something wrong in a policy which causes the sweeping destruction of property to be regarded as a public blessing. We find a fit counterpart to this fact in the salt-manufacturers of Ohio, who in order to keep up their profits united to lease the Kanawha salt-works of Virginia, with their superior facilities, only to close them up and forbid competition from that quarter. No branch of industry has been more clamorous for protection than the iron interest. None has been more constantly favored, and in none have these fluctuations been greater. As the year 1878 opens, it is prostrate. The diagnosis of the case by the economic physician declares it "*sick well nigh unto death by reason of excessive protection.*"

3. *Protection diminishes the legitimate revenues of the government, at the same time that it lays a heavy tax on the people.* A government must be sustained by revenues derived from taxation. The imposition of equitable duties on imports is admitted by the advocates of free trade as a legitimate mode of raising a revenue. A strictly *revenue* tariff has no disturbing influence on trade, nor does it conflict with the free development of a nation's varied industry. But a *protective* tariff has another end in view. That end would be most fully attained by duties high enough to *prevent* altogether the importation of certain articles. If it attains its end in any degree, it must

restrict importations. In either case, it reduces the revenue actually derived from this source. Meantime, the whole community is taxed by the extra thirty, sixty, or whatever per cent is added to the price of every yard of silk, and every pound of iron, etc., consumed.

If therefore, it were wise for the government directly to encourage particular industries, a system of *Bounties* would be far more economical than that of a protective tariff. If foreign silk can be sold in our market for three dollars a yard, while it costs five dollars a yard to produce an article of the same quality here, a bounty of two dollars a yard, paid by the government to the home-manufacturer, will put him on a level with the foreign manufacturer. The people then, can buy all the silk they need at three dollars, choosing freely between the home and the foreign product. Consumption is not diminished by an enhanced price, and the only public burden involved is to provide for the bounty on the home product. Every dollar of the tax drawn from the people goes directly to its object. In such a case however, it would be clearly seen just what the artificial stimulus to the silk manufacture costs; and this is the chief reason why the system of bounties is not employed. The inequality and injustice of the principle common to both this and the protective system would be too apparent to be long tolerated.

4. *The policy of protection, in its application must be unstable, disturbing the course of industry by frequent changes.* This follows inevitably from the conflict of interests referred to. As soon as a high duty on iron shows its effects in prices, all who use iron as the material of their industry begin to clamor for a change of the tariff in that particular. Again, the advantage which protection gives is eagerly sought by all. Hence on the one side, a pressure to extend the tariff-list, is resisted on the other by an effort to make the singular privilege exclusive. Under

these influences, it is impossible to settle an order which shall be permanent. It is a historical fact that scarcely a session of our Congress passes without attempts to change the tariff. It never is nor can be made satisfactory to all. This changeful legislation works disaster on particular enterprises, and throws uncertainty into all arrangements and plans of business. A protective tariff can never be made fair and equal to all, for its fundamental principle is an *unjust favoritism* against which those not favored instinctively protest and contend.

5. *Protection tends to demoralize our national legislation.* The so-called "*lobby influence*" at Washington has become proverbial. It is an influence which works to carry through enactments of law by regard to private interests, rather than to principles of right applied to the public weal. The lobby is thronged with representatives of certain manufactures seeking to obtain or to perpetuate special protection. They use money freely, not perhaps in the way of direct bribery, but in a way to work influence. The consequence is that, to a great extent, legislation on the tariff is determined by the bearing of certain measures on a pending election, or on interests which especially concern the constituents of congressmen. Bargains are made to combine the friends of separate measures, when votes are given. This mode of disposing of questions becomes habitual. It opens the door for subsidies and other corrupt measures. All proposed acts come to be judged of not by their real merits as right and good for the state as a whole, but by their relation to personal emolument, place and power. Genuine statesmanship is thus over-ruled and degraded. We do not charge these tendencies wholly on protection. But it is evident to every careful observer that these corrupting influences are the natural outgrowth of this policy, and concentrate around the measures which it dictates.

6. *Protection tends to corrupt the public morals and the public service.* It offers strong temptations to the violation of law by smuggling. Against this temptation, the consciences of men oppose but slight resistance, because the tariff law rests on no grounds of absolute right. On the contrary, it is easy for men to persuade themselves that these enactments are unjust. Respect for the law and its force, as a rule of action generally, are thus impaired. The nice sense of honor and right is deadened and the making of false invoices, the swearing of false oaths and direct bribery at the custom-house are regarded as venial sins. Very naturally, government officials are drawn into direct collusion and partnership with these crimes and betray the sacred public trusts with which they are charged. The corruption which thus attends the collection of duties at the port of New York is notorious. For many months, honest importers have been compelled to abandon the attempt to bring in foreign silks, paying full duties, because the market is full of smuggled goods. The same thing is true of many other articles on which the duty is high. The Hercules who is equal to the task of cleansing that Augean stable, by some measure of "civil service reform" has not yet appeared. The evil is so inherent, that we have reason to believe it cannot be eradicated except by the overthrow of the system; meantime it is diffusing a subtle moral poison through our whole body politic.

We may conclude this discussion with a few words respecting **Historical Results**, often brought forward with confidence by the advocates of protection. The historian Froude says "It often seems to me as if history was like a child's box of letters with which we can spell any word we please."[1] In the use of this kind of argument, there is constant danger of running into the logical fallacy of "*non causa pro causa*"—of giving a mere coincidence the force of a cause. The remark is especially true concerning the subject before us, because what seems like a state of industrial and commercial prosperity is often illusive, and where it is real, it is the effect of many causes combined, or the resultant of opposing forces. Thus the wonderful activity of business in our country just after the late war closed, was generally considered as betokening sound prosperity. Later experience has shown that the nation was then acting under the wild delirium of a burning fever.

It is a fact that the Jewish money-lenders in mediæval times, grew rich and thrived when persecuted, defrauded and oppressed without mercy by kings and feudal lords. Shall we say that their wrongs were the cause of their thrift; or that by their persistent energy under the passion for gain, they grew rich in spite of oppression? So also the industry and commerce of European cities from the twelfth to the fourteenth centuries steadily increased amid hostile rivalries between themselves, narrow restrictions on conflicting guilds and constant exposure to plunder by robber barons. It would surely be a mistake to say that the subjection to these rivalries, restrictions and robberies was the cause of their prosperity. It is a fact that in England, the protective policy has been till within the last forty years, persistently and vigorously maintained. It is also a fact that while this policy prevailed, England grew in wealth and power through her manufacturing and commercial industries. But does the coincidence of these two facts in time establish the relation of cause and effect between them? The truth is that where there are large material resources in a country, and vital energy in its people, industry will develop wealth in spite of all obstructions, just as from the vital force of an acorn dropped into a cleft of the mountain, will spring the oak, in its steady growth rending the rocks that cramp its roots, and defying the whirlwinds that twist and strain its gnarled branches.

Until within the last half century, the protective policy has ruled the industry of the world. Free trade has had scarcely a chance to try its experiment. Yet its principles have been clearly illustrated and sustained in the hundred years' history of our nation's independent life. The states of our republic, in their extent of territory, their diversity of resources, the varied races and endowments of their population and their distinctive interests, constitute a world by themselves. Fortunately, our constitution forever forbids the protective policy to restrict their trade with each other. A broad arena is thus presented for the experiment of free trade. For nearly forty years, we have watched the course of that experiment in the unfolding growth of the young state of Wisconsin. Her main industry was at the first and must long continue to be agriculture. But as population has poured in, and agriculture has yielded a surplus of home-capital, and a basis of credit has been laid for the introduction of eastern capital, every kind of industry suited to her climate and conditions has been successfully established. Her mines have been worked, her water-powers have been utilized, villages and cities have sprung up spontaneously, and the diverse genius and taste of her sons have found at home ample scope and stimulus for profitable exercise. According to the theory of protection, the competition of New England manufactures, brought in freely by the best facilities for transportation, should have precluded the making of like products here. But the facts are all against the theory. We have seen woolen factories, cotton factories, shoe factories, watch factories, iron works, machine shops, paper mills, establishments for making agricultural instruments, etc., all started, on a comparatively small scale indeed, but with a success and prosperity that promise to be abiding and expanding. This is the result of a brief but fair experiment of the principle of free trade. It confirms every phase of the theory and shows that *what is philosophically sound and true is also practically safe and wise.*

CHAPTER XXIV.

RAILWAY CORPORATIONS.

THE operations of exchange are aided by all facilities for free communication and for the transportation of persons and goods between different sections of a country and different parts of the world. Steamships and ocean telegraphs have changed the methods of foreign commerce. Domestic trade and industry have been yet more affected by the modern system of Railway transportation. The pen of an eminent jurist has set forth with both truth and eloquence the benefits derived from this means of swift passage. "Railroads," says Judge Paine, "are the great public highways of the world, along which its gigantic currents of trade and travel continually pour—highways compared with which the most magnificent highways of antiquity dwindle into insignificance. They are the most marvelous invention of modern times. They have done more to develop the wealth and resources, to stimulate the industry, reward the labor and promote the general comfort and prosperity of the country, than any other or perhaps all other mere physical causes combined. There is probably not a man, woman or child, whose interest and comfort has not in some degree been subserved by them. They bring to our doors the productions of the earth. They enable us to anticipate and protract the seasons. They enable the inhabitants of each clime to enjoy the pleasures and luxuries of all. . . . There is scarcely a want, wish or aspiration of the human heart which they do not in some measure help to gratify."

But every power for good may be abused and perverted into a power for evil. Experience reveals a tendency in great railway corporations to acquire and to exercise despotic power, in a way to obstruct trade and to bring a blight upon productive industry—a power which sometimes aims by base means to control legislation, and sometimes attempts to defy the law. Grave and complicated problems are thus presented which need to be studied in the light of economic principles. Our science has certainly something to contribute towards the practical solution of these problems.

The Nature of a Railway Corporation. There are to be recognized three distinctive features.

1. Such a corporation is a *Creature of the State.* It originates in a legislative act. This must be so for three reasons. First, because it is peculiarly a function of the State to provide highways of travel and trade for the general benefit of its people. Second, because the making of such highways involves an interference with private property which can be warranted only by the authority of the State in the exercise of its sole right of "*eminent domain*" for a public advantage. And Third, because the construction, equipment and operating of an extended railway is an operation of such magnitude as to require the capital and energies of many to be combined.

2. Such a corporation is *an Agent of the State.* The considerations just named would justify the government of a State in taking upon itself to provide and manage railways for the public good. Belgium and some other European states do thus entrust this entire interest to the direction of government officials. But the policy of our government is, in accordance with the economic principles heretofore presented, to enlist private enterprise as far as practicable in all undertakings which directly concern in-

dustry and trade. Accordingly in the legislative act which creates a railway corporation, the government does two things. First, it constitutes of a number of associated individuals *an artificial person* with a distinctive name, to act by one united will, capable of receiving, holding and conveying property, of entering into contracts and incurring debts, of suing and being sued. The body corporate thus formed, is in the eye of the law, a civil person possessing certain rights, enjoying certain privileges and exercising certain functions for a specific object. Second, the government transfers to this body corporate certain of its own *sovereign powers,* especially that of eminent domain, that is the power to take private property for public use on making due compensation to the owners; and charges it with the fulfillment of its own *legitimate functions,* namely, providing the public with facilities for the transportation of persons and goods. The powers are granted with reference solely to the function contemplated. A decision of the United States Supreme Court declares that "building a railroad, though it be built by a private corporation, is an act done for a public use," and again "in their very nature railroads are public highways." Chief Justice Shaw, of Massachusetts, says, "the real and personal property necessary to the establishment and management of a railroad is vested in the corporation, *but it is in trust for the public.*" It is therefore, *as an agent of the State,* that a railway corporation takes land from its citizens and establishes a highway of intercourse and commerce for the public service. Hence in the very nature of the case, its powers and vested rights cannot be held and exercised independently of the State. The government is false to its own sacred trusts, if it does not hold such corporations ever responsible in all respects for their conduct in the discharge of their proper functions.

3. A railway corporation is in some degree ***a practical***

Monopoly. The private enterprise which undertakes, as an agent of the State to perform the service named, is entitled to a just compensation. The members of the company invest their capital for expected profits. Their private interests are to be carefully conserved. The corporation gets its compensation by collecting fares and freight charges for the actual transportation of persons and goods. That is, as an offset for the service rendered, the government allows a private company to tax the public who have the benefits of that service. But after a railway is once established, it controls the business of transportation for the section through which it runs. The only competition possible is that of parallel railways or water transportation. Hence the arrangement itself gives to the corporation a practical monopoly with the power of taxing the community.

This is probably the best way of making remuneration for the service. If the government performed the same service by a bureau of its own appointed officers, it would tax the community in the same way. There is no just ground for complaint of this monopoly as a method of paying for a valuable service; nor of its legitimate exercise to secure generous returns for capital and labor employed. But it is evidently liable to abuse. The government has need therefore, to subject the business to reasonable conditions and to retain such power over it as to guard the public against oppression. Mr. Mill very fitly says, "the State should either reserve to itself a reversionary property in such public works, or should retain and freely exercise the right of fixing a maximum of fares and charges and from time to time varying that maximum."

While railway corporations are creatures of the State, called into being to serve as agents of the State for the accomplishment of certain purposes, they are also to be regarded as parties to contracts with the State, entitled to just reward for their services, and having *private rights and interests* always to be respected and guarded. On the part of the State, the object distinctly contemplated is to develop the material prosperity of the people. On the part of each corporation, the object never lost sight of is to realize a profit for the capital and labor which it employs. These two objects are not necessarily opposed to each other. On the contrary, each is best promoted when qualified by respect for the other. This will appear more clearly as we study next,

The Relations of Railway Corporations to general Industry.

1. By transportation, they give to all products *that last addition of value* which comes from their being in the places where they are most needed. They directly perform a kind of labor essential to the increase of wealth. The importance of this labor cannot be over-estimated. It links itself with every other kind of labor and is necessary to develop the full results of all industry.

2. *They enlarge the market for all products,* and so help to maintain the natural equilibrium of supply and demand. They bear away the surplus productions of one section to meet the deficiencies of another, to the relief of both ; and the industry of both is thereby stimulated.

3. *They quicken exchanges* and thus hasten the returns from both capital and labor. Hence they tend to reduce prices, and at the same time to make them more remunerative.

4. *The business of the railways depends upon the productiveness of industry.* The demand for transportation is proportioned to the amount of products to be carried out of a country. We have seen that the ability of a people to trade depends on the surplus of goods they have to dispose of. That which goes out must pay for what is

brought in. Hence the bountiful crops which reward the labor of agriculture, large proceeds from the mines, the success of all manufacturing industry, all subserve the profits of the railways. So too, the use of railways for travel depends on the increase of individual wealth. It is for the interest of these corporations that all whom they serve should grow rich. It is better for themselves and for all concerned that their profits should be increased by enlargement of business rather than by increasing the rates of charges. It is both right and politic for railways to favor the prosperity of industry all along their routes, in all intermediate places, as well as at the extremities.

5. By abuse of their power as monopolies, the railway corporations may *diminish the returns of all industry.* They may set their rates so high as virtually to deprive producers of the advantage of an enlarged market. Thus the railway charges for transporting the agricultural products of the West to the sea-board sometimes absorb all the difference in prices. When increased demand abroad has raised the price of wheat in the foreign market, the railways have been known to increase their charges so as to cover all the advance, and rob the Western farmer of his share in the advantage. Such a course must be depressing to industry. It is possible in the relations of the parties, but it is a violation of mutual rights in these relations. *Harmony and co-operation* characterize the true relation of railways to all other departments of productive industry. It is a foolish short-sighted policy which, for a temporary advantage, disregards this fundamental truth.

The Administration of Railway Corporations. The construction and operations of railways require great outlays for which large accumulations of capital are necessary. This capital is in part gathered by subscriptions for stock; in part, it is obtained by the use of credit. The original corporators pledge themselves for certain shares. Then the public and especially the people along the proposed route are called to add their subscriptions. The call is urged by pleading the benefit to be derived from the road, and by the promise of profits to stockholders. In many cases, farmers and other citizens, unable to advance money, have been induced to give their credit by mortgaging their farms and homesteads. Cities, towns and counties also have been persuaded to tax themselves, or to lend their credit in the form of bonds for the benefit of the road. The stock is then widely distributed to great numbers of persons. The corporation is composed of all stockholders. Such a body is manifestly unfitted for the details of business. The corporation is therefore organized by the election of a *Board of Directors* which may be continued or changed at each annual meeting of stockholders. To this Board is entrusted the choice of officers and the general administration of the company's affairs. *A mighty power is thus concentrated in the hands of a few managers.*

Since at meetings of stockholders, votes on all questions are taken by count of shares, absentees voting by proxy, it is not difficult for the managers, by commanding a majority of the shares, to control action and retain their power. The minority are helpless to resist this power. The directors may be true and faithful to the interests of the corporation and of the public, so that all shall be well administered. They may use their power to subserve interests of their own, antagonistic to both.

Great abuses proceed from the selfish policy and ruinous administration of railway managers. By lavish expenditure, and the reckless use of credit, the entire property and franchises of many railways have passed under foreclosure of mortgages into the hands of bondholders. Individual stockholders thus lose all they had invested in the enterprise. Worse than that, many an humble citizen or farmer has to give up his homestead or farm, or struggle for years to clear it from the mortgage given for his stock, with nothing to offset his loss.

The interests of minor stockholders are often sacrificed in another way, which can best be explained by an actual instance. The B. & C. railway was doing a prosperous business, which paid handsome dividends and commanded for its stock a premium in the market. The B. & D. railway, running out of the same city in another direction, was much embarrassed so that it yielded no profits, and its stock was almost worthless. The managers of the B. & C. in concert with some others, bought up at very low rates, the greater part of the B. & D. stock, and then using, or rather misusing the power of their official position, merged the stock of the good road in that of the other. The consequence was that the B. & D. stock rose at once to sevenfold its former value, the advantage of which inured to the benefit of its shrewd managers and their friends, while hundreds of innocent holders of the B. & C. stock saw their dividends cut off and their property reduced in value one-half, by the treacherous act which they had no power to resist and for the wrong of which they had no redress.

Again we have cases like that of the "*Credit Mobilier*" on the Union Pacific railway, in which some of the managers as individuals were organized into a distinct company, to contract for building the road. As managers, they let to themselves, in the above capacity, contracts at such rates as made them rich, but tended to impoverish the corporation of which they were the official guardians.

Not unfrequently railway directors operate on a large scale, in the *speculations of the stock exchange*, and manipulate the affairs of their own corporations so as to raise or depress prices as may best suit their own advantage, utterly regardless of the effects on public interests or on those whose capital is entrusted to their care.

The process of "*watering stock*" so-called, in like manner sacrifices public interests to the selfish greed of railway officials. Its effect is to lay on the public extra charges that dividends may be paid on double the amount of stock actually paid in.

Sometimes the officers of a railway engage in *the traffic of commerce* and change the rates of freights to suit their own advantage. Then by alternate ruinous *competitions* and grand *combinations* they throw uncertainty over all the transactions of trade, causing fluctuations by which many are made bankrupt while a few of the inside ring are enriched.

Worst of all, is the abuse of the great *money-power* of these corporations to carry measures of legislation for their own interests to the detriment of the public weal. The modest expression, "*putting money, bonds or stocks where they will do the most good*," means in plain speech, bribing Congressmen of weak consciences and buying up State legislatures.

In speaking of these things, we have no sympathy with the indiscriminate tirade against these corporations, in which some indulge. We do not charge them as sinners above all others in these respects. Express companies, telegraph companies, insurance companies and other great monied corporations indicate more or less the same vicious tendencies. We advocate no blind "granger" movement of open hostility. On the other hand, we hold in highest estimation the benefits conferred on the country by these corporations. We count worthy of all honor many men of highest integrity connected officially with them, who stand manfully for the correction of abuses and the just fulfillment of their trusts.

But a clear apprehension and consideration on the part of our intelligent citizens generally, in the light of both economic and moral principles, of the evil as well as the good involved, will work out the surest corrective of the evil and the truest safeguard of the good. Grave questions of legislation are before the country on which the people as well as their law-makers need to have an intelligent judgment. How shall the rights of innocent stockholders be guarded against the machinations of unscrupulous managers? How shall these corporations be protected in their just private rights, and yet be held under restrictions and responsibilities which will keep them true and faithful in their legitimate functions as agents of the State for great public interests? Shall all be left to the separate and varying action of the several States, or shall the national Congress exercise its constitutional power to regulate commerce between the States, by enactments which shall be uniform and authoritative over the whole country? The wisest and profoundest statesmanship in the land is needed for the solution of these problems.

But back of all legislation, more effective than all statutes, is the sound public sentiment, formed and guided by a good conscience on the part of the body of our people—a sentiment which rests on an intelligent regard for the fundamental principles of Political Economy in this as in other applications—a conscience which holds individual conduct to the ways of justice and honor, and which expresses itself, through all channels of social intercourse and popular influence, in condemnation of treachery, fraud and robbery, however subtle and shrewd the processes, however grand the scale of operations, however rich the results of successful wickedness.

CHAPTER XXV.

COMMERCIAL CRISES.

Speculation *is the prime cause of commercial crises.* In its first and best sense, this word is but a name for the *foresight and mutual confidence* which are indispensable in all operations of exchange. It has a bad odor only because of its abuse. Mr. McCulloch says "Every transaction in which produce is bought that it may be afterward sold is in fact a speculation." A merchant's business is to study the market so as to buy goods with a well-founded anticipation of selling them at a profit. His success must depend on the clearness of his foresight and the good judgment and energy of his action. Credit too must enter more or less into both the buying and the selling. As the anticipations of profit grow bright and strong, the merchant is prompted to exert his purchasing power to the utmost extent of both his capital and his credit. As one does this, others catch the impulse and the spirit of speculation pervades the whole community, stimulating all departments of business to unwonted activity. Kept within proper limits, such a movement is healthful and safe. The trouble is that unwittingly, individuals pass the limit of safety and are borne on by forces of which they are not sensible, till over-production, over-importation and the excessive extension of credit bring on a sudden revulsion.

When for whatever reason, prices are subject to considerable fluctuations, especially if they are connected with an unstable currency, there springs up what Adam Smith calls "*the trade of speculation.*" This is a species of *gam-*

bling. A class of men devote themselves to the study of fluctuations, with a view not to actual trade, but to betting on the rise or fall of prices. At the Chicago corn exchange, for instance, two men enter into a contract, the one to deliver and the other to receive ten thousand bushels of wheat, after thirty days, at a certain price; the one presuming that the market price will decline before the day of delivery comes, the other that it will rise. The thought of an actual transfer of the wheat does not enter the mind of either. The transaction is a mere bet on the future price, and when the time matures, it is closed by the loser's paying the difference between the market price and the price named in the contract. Such men throng the stock-board, the gold room, the corn exchange, the cotton market, the wool market. This, like all other gambling, has its tricks, its artificial appliances to affect prices. The "*bulls*" use all means possible to raise the market price, and the "*bears*" labor unscrupulously to depress it. These operations always aggravate the rising fever of speculation in the community. Men grow impatient of the "slow and sure" gains of regular trade, and are dazzled, like those who dabble in lotteries, by the vision of sudden fortunes.

A Panic *is the turning-point when the revulsion occurs;* when baseless anticipations are disappointed and mutual confidence suddenly gives place to general distrust. When men have entrusted their property to the care of others, whatever comes suddenly to shake their confidence may produce a panic.

An individual or a corporation may thus be suddenly overwhelmed *with no just cause.* This was illustrated in the case of the National Gold Bank and Trust Company of San Francisco, in 1875. Just after a careful investigation had shown the company to have assets amounting to $1,300,000 in excess of all liabilities, a check for $4000 was presented and payment was deferred in order that some irregularity in the form of the check might be corrected. Thereupon the holder of the check industriously circulated the statement that the bank could not pay a four thousand dollar check. This started a panic. The depositors rushed in to draw out their funds. After paying half a million, the bank was compelled to close its doors and go into liquidation.

Sometimes the undue expansion of credit for purposes of speculation *in a single branch of trade,* brings on a panic and collapse. Mr. Tooke states a case which shows how credit in the simple form of book accounts may be expanded and lead to this result. In 1839, difficulties between England and China threatened war. Anticipating a suspension of the importation of *tea,* certain dealers in that article hastened to buy up the stock in the market that they might secure a greater profit on account of the expected scarcity. This action itself disturbed the market as it was, and the price of tea rose rapidly till it was advanced one hundred per cent. The anticipations seemed thus to be realized. One dealer whose capital did not exceed £1200, and that locked up in his business, pushing his credit to the utmost, was able to purchase four thousand chests valued at £80,000. But the enhanced price of the article diminished consumption, and by indirect importation, there came an unlooked for supply. The speculation failed. Those who had freely given credit to the speculating dealers were thrown into a panic which precipitated the crisis and aggravated the disaster to all concerned.

The balance of men's judgment is apt to be disturbed by *extraordinary profits from any production,* and they are tempted to push their credit beyond safe bounds. With increased income, they adopt a more luxurious style of living. At the same time, they make large outlays to extend what seems a profitable business. Such signs of prosperity make it easy to borrow, for the excitement affects lenders also. Thus out of a real fact, imagination creates an illusion and all parties are led by a "Will o' the wisp" away from solid ground. Suddenly the deceptive light goes out, and lost in the swamp, each in the panic of the hour, trying to save himself, pulls his fellow-down. Thus, a few years ago, thrifty farmers of the Connecticut River Valley realized great profits from the culture of *tobacco.* The sudden gains turned their heads. From their old frugal ways they ran into extravagance in living. To increase future profits, more fields were plowed, costly fertilizers were applied and expensive help was employed. The merchants and the banks freely gave credit to the prosperous farmers. All promised well, till through some freak of speculators in the market, prices declined. Then the crisis came and the gathered crop was hardly sufficient for a tithe of the debts for which it had been pledged. Under the panic, real wealth was sacrificed by forced sales, and men of integrity and means, who with time to turn what they had, could have met all liabilities, went down with weak and reckless adventurers.

Often a combination of such influences affects the business of a whole country through a general expansion of credit and bold speculation. The movement ordinarily starts with some real occasion. There may be on the one side, capital accumulated but unemployed, and on the other, rich resources of wealth which labor is waiting to develop. It is the legitimate office of credit to unite these two elements of production. In such circumstances, their union yields extraordinary profits, and great expectations draw out credit indefinitely. Under this unwonted stimulus to every department of business, the whole community becomes infected with a mania of speculation. Credit starting from solid ground, pushes out its structure unsupported over a yawning chasm, till it is ready to break by its own weight. Then whatever incident comes to test it, reveals its weakness. The first crack of the framework sends out a report which starts a panic and the crash is inevitable.

All this is well illustrated by facts of the commercial revulsion of 1837. During the earlier part of the preceding decade of years, all branches of business were highly prospered. Railways and steam navigation on the lakes made an easy way for domestic and foreign emigration to go and develop the rich resources of our Western lands. This gave a healthy stimulus to the productive industry and commercial enterprise of the older States. By credit, unemployed capital was drawn into use and labor was in great demand. Interest, wages and the prices of goods rose together and all over the country, men were really growing rich. But they were not content with the old slow and sure progress. All foresaw that the cheap lands of the West must be rapidly enhanced in value. This promise of the future, working on the imagination, started a fever of speculation which spread like an epidemic. It was fed on credit universally extended. This extraordinary stimulus was intensified by *political action* connected with the suppression of the United States Bank. The transfer of the government deposits to State banks and the distribution of the nation's surplus revenue among the States led to a great increase of the *paper currency* and to a free extension of credit for all sorts of enterprises. In the West, to supply the lack of money, "wild-cat" banks were established and issued their baseless circulating notes in profusion. Goods and lands and city lots were exchanged for small payments of money—itself resting mainly on credit—and a large balance of credit on long time.

Thus during the years 1835–6, the bubble of speculation was inflated to its utmost dimensions by the expansion of credit in every form. In the beginning of the year 1837 there were in the country 634 banks, with less than $38,000,000 in specie issuing $150,000,000 of notes and discounting $525,000,000 of paper. Individual credit was proportionally extended. The wildest speculation was engaged with *Western lands* and city lots. Not only the bold pioneers of the frontier but thousands of sober Eastern people were drawn into hazardous ventures. The site of Milwaukee was opened to white settlers in 1835–6. Its advantages were quickly discerned, and adventurers hastened thither by hundreds. A city was laid out, and the prices of lots doubled every few weeks. Men who came with nothing soon counted their wealth by thousands. But sales were made almost entirely on credit, and the quickly made fortunes really consisted of piles of promissory notes, or of figures doubled in the inventory of lots, whose estimated value could be realized only by the city's growth for twenty years. Yet nobody perceived the illusion; the dream seemed reality for the time. Even the honest French trader, the original owner of the site, who was paid a substantial compensation for his title, embarked his little fortune again on the sea of speculation to be lost forever. Similar transactions were going on in hundreds of other places.

At the same time, in the East, ideal fortunes suddenly acquired, prompted *extravagance* in dress and living which caused large importations of foreign goods. The real wealth of the country must go out to pay for these, especially the gold and silver; for credit currency never goes abroad. The way was thus prepared for a sudden and disastrous collapse. Its immediate cause was, strange to say, the unusually large crop of cotton in 1836. Southern merchants and brokers had given the planters credit in the expectation that previous high prices would continue. But the price in the foreign market declined. The planters could not make good the difference, hence the cotton factors could not meet their obligations to their New York correspondents, and their paper was dishonored at the banks. These failures created distrust, the panic followed and the bubble burst. Prices suddenly fell, banks suspended, business stopped and the financial chaos with its attendant stagnation and distress was universal, and continued for several years.

Such, with manifold slight variations, is the ordinary course of things in a general commercial crisis. The real mischief is done in the earlier stages, when all goes on so well that nobody thinks of danger. The panic is inevitable as soon as men begin to see on what a slender base they have been building their hopes and working out their schemes. The lessons of sad experience are, however, very soon forgotten, and these phenomena recur quite regularly in smaller and larger cycles of ten and twenty years.

The practical problem is how to preserve and perpetuate *the balance between confidence and caution*—how to give scope for the use of credit with proper checks against its abuse. Legislation may be called on to establish a stable currency and then to keep it stable by *letting it alone;* also to provide equitable laws for defining and enforcing contracts, and then to maintain these laws with the least variation possible. As the chief means for avoiding the recurrence of these fearful convulsions, we must have a more thorough incorporation into the usages of business, of the simple principles of Political Economy. As of special importance in their bearing on this problem, we reiterate the following:

1. The natural standard of value and price for all articles is the *cost of production* including a fair profit.

2. Though the alternations of supply and demand produce more or less of temporary variation, there is a natural

tendency *to an equilibrium of prices* on this constant basis of cost.

3. Stable and healthy prosperity of business depends on *maintaining this equilibrium* generally; but mischievous speculation aims always to disturb it.

4. *The true functions of credit* are to bring accumulated capital into productive union with labor, and to facilitate exchanges by bridging over gaps of time and distance.

5. When men purchase with credit, they draw upon *a fund which has no definable limit.* High hopes impel men to extend their purchasing power to the utmost by adding to their ready money all the credit they can command. This is the point of danger.

6. This element in the market *disturbs the equilibrium* of prices without respect to the true standard; an *artificial demand* is created which finds no check because advancing prices and profits apparently increased, seem to warrant the further expansion of credit.

7. Hence comes that "*excess of speculative purchases*" which Mr. Mill calls the prime cause of a commercial crisis, and which leads to the sudden recoil of prices and the consequent collapse.

8. The panic which follows is as *rash and unreasoning* as was the confidence which blew the bubble, and precludes the application then, of any effectual relief.

9. The necessity of turning all kinds of property into money to meet indebtedness, *fills the market with sellers, while few are ready to buy,* and prices sink as far below the standard as they were previously raised above it.

10. Then *production must be suspended and business stand still,* till adjustments are made and the basis is laid for starting again by the true standard, with mutual confidence qualified and restored.

At this date, 1878, the financial condition of the whole

civilized world is and has been for three years, such as was probably never known before. Heretofore, separate nations have had their commercial crises from time to time, traceable to peculiar local causes. Now all civilized nations seem to be brought at once and together into this condition. Each country shows some symptoms peculiar to itself, but in its general features, the distemper is one and the same everywhere. Suspended production, stagnation of trade, general distrust, bankruptcies, defalcations, strikes, idleness and distress of workingmen are reported from every quarter. We cannot pretend to offer a full explanation of the case, much less to prescribe a certain remedy. Some things are apparent, however, which have contributed to this result, and may be concisely stated.

First. Within the last sixty years, *the invention and introduction of labor-saving machinery* has changed the methods and greatly increased the results of productive industry. The wealth thus produced is not at all in excess of the needs of men, but the problem of its wise distribution to meet those needs is not yet solved.

Second. The use of expensive machinery for manufactures and of steam for transportation, requires that every kind of business be conducted on *a large scale, with large capital, and in large establishments.* Hence a necessary expansion of credit and greater risks, both tending to increase the *speculative* character of business.

Third. This large way of doing things, in connection with the multiplied conveniences, comforts and luxuries of living, has induced *a sudden increase of extravagance* quite universal, in the habits both of business and of domestic life.

Fourth. Steam navigation, railways and telegraphs now hold all nations in such *close commercial intercourse,* that when one suffers all must suffer with it.

Fifth. *Wars* now produce much more disturbance of general commerce than formerly. They are also vastly more *expensive*, and leading to the *extension of national credit*, they work a yet greater disturbance of the world's finances.

Sixth. Within the last twenty years have occurred two wars—that of the Rebellion in the United States and the Franco-German war in Europe—both affecting very closely *the vital centres of the world's industry and commerce.*

These causes, many of them working silently and unnoticed for years, seem to have gathered to a head in these passing years, with such sad results as have been noticed. We cherish the fond hope that out of the present evil will come a greater good, in the better apprehension of the true brotherhood of nations, of the fundamental principles of Political Economy and of the application of these principles both in minute details and in broad generalizations, to human industry and trade the world over.

THE END.

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